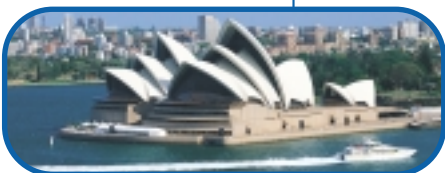


**RENOLD**

# escalator

chain



**RENOLD**

step up to quality

# Escalator industry - overview

## RENOLD ESCALATOR CHAIN

Renold Chain, the world's leading manufacturer of chain, dedicated to power transmission and mechanical handling applications, have designed and manufactured high performance escalator step chains for over 50 years. Renold Chain supply escalator manufacturers and end users with chain products that surpass the high standards required for this safety conscious industry.

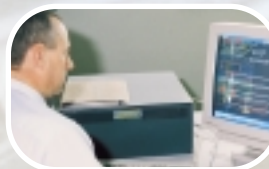
## PRODUCT RANGE

- An extensive product range is available to meet the specific requirements of manufacturers, service companies and operators. Renold have also developed a full range of lube free chains for longer lifetime operations branded Renolube.



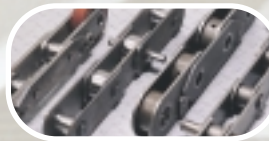
## ENGINEERED CHAIN DESIGNS

- Renold engineer and develop chains to meet the specific needs of manufacturers using the latest design techniques, and test facilities to produce value engineered solutions for all environments.



## RENOLUBE

- A range of special chains have been developed to allow extended chain life and reduced maintenance. (See page 6, for further information)



## STANDARD ESCALATORS

- Internationally, Renold have established an unrivalled expertise for supplying replacement chains for escalators made by many of the world's leading manufacturers, including: Otis, O&K, Thyssen, APV, Schindler, Fiam, J&E Hall and Montgomery.
- Replacement list - popular replacement chain types are illustrated on pages 3, 4 and 5, together with the dimensions and ordering references.



## PUBLIC SERVICE - METROS & HEAVY DUTY

- To meet the demands of major escalator users, such as Metro system operators, Renold's special experience in providing value engineered design solutions for public service escalators, utilises modern materials and the very latest lubrication techniques.



## TRANSMISSION DRIVE CHAIN

- Renold provide an extensive range of chains for auxiliary drives on escalators such as Headshaft drive chain and Handrail drive chains. Chains are made to international standards: ISO606A and B / ANSI B29.1M / BS 228.
- Renold special chains are produced to existing manufacturers designs.



## ENGINEERED CHAINS

Renold Chain's philosophy is to develop a close working partnership with escalator designers and operational engineers, to provide the most value engineered chain solution for new and existing escalators.

By understanding the operating requirements and environment for specific escalator applications, using the experience gained over 50 years of step chain manufacture, Renold have designed a comprehensive range of chains to meet the needs and demands of manufacturers and users worldwide.

A selection of popular chain types is listed, and includes heavy duty chains used on public service escalators and conveyors in transport systems.

There are many small variations in escalator chain dimensions, and the information in the following tables should be used as a guide only. Confirmation of design detail will be required prior to ordering.

*Please contact Renold Chain to discuss any requirements for escalator chain.*

## E 200 SERIES

Step fixing extended pin. Illustration shows polymer inboard rollers, other types may have steel rollers. E 200 Series chains are typically used on store type escalators, as manufactured by CNIM, J & E Hall, Kone, Montgomery, O & K, Otis, Schindler and Thyssen.

## STANDARD CHAINS STORES TYPE

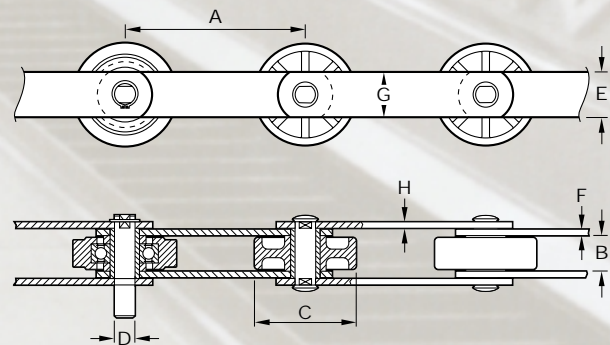
A range of chain is available for popular standard escalators operating in the retail sector, stores, shopping malls and buildings.

See E 200 / E 300 / E 400 Series.

## HEAVY DUTY / METRO REPLACEMENT

A range of chain is available for existing escalators in public service systems. We offer direct replacement to OEM specifications or equivalents.

See E 500 / E 600 Series.



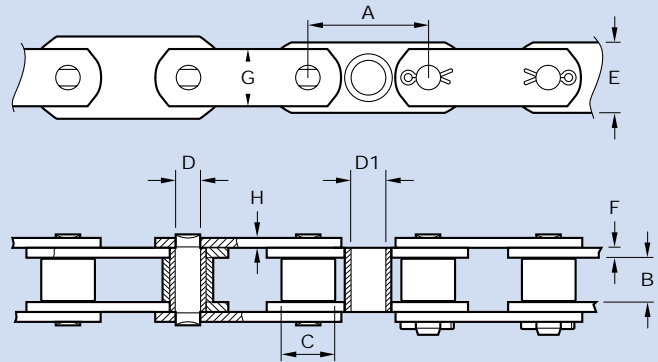
STORES TYPE  
Nominal Dimensions (mm)

Series	Pitch (mm) A	Inside Width (mm) B	Roller Dia. (mm) C	Pin Dia. (nominal) D	Inner Plate height E	Inner Plate thick F	Outer Plate height G	Outer Plate thick H	Breaking Load (kN)	Types
E 201	101.25	27.40	75.00	14.62	35.00	5.95	35.00	6.00	122	Thyssen 68
E 202	101.24	24.13	28.01	14.28	38.85	6.35	37.99	6.29	182	Montgomery
E 203	133.33	25.09	75.00	14.62	32.50	5.05	32.50	5.05	128	O & K
E 204	101.25	25.00	28.00	14.60	38.85	6.35	35.00	5.95	120	J & E Hall (V)
E 205	101.25	25.40	25.38	14.62	35.00	5.95	35.00	4.95	122	Thyssen 57
E 206	133.35	27.40	70.00	14.62	40.00	4.95	40.00	4.95	114	Schindler
E 207	133.33	20.20	75.00	12.46	32.00	5.05	32.00	5.05	98	O & K
E 211	101.25	25.25	28.00	14.62	35.00	5.95	35.00	5.95	120	Thyssen
E 212	133.35	27.40	70.00	14.62	40.00	4.95	40.00	4.95	114	Schindler
E 213	133.33	27.40	70.00	14.62	40.00	5.00	40.00	5.00	114	Schindler
E 214	44.45	25.23	25.40	based on ANSI 140 with step pin at 15.75					191	J & E Hall (U)

# Escalator industry - E Series

## E 300 SERIES

Store type escalators with hollow bush step axle fixing.

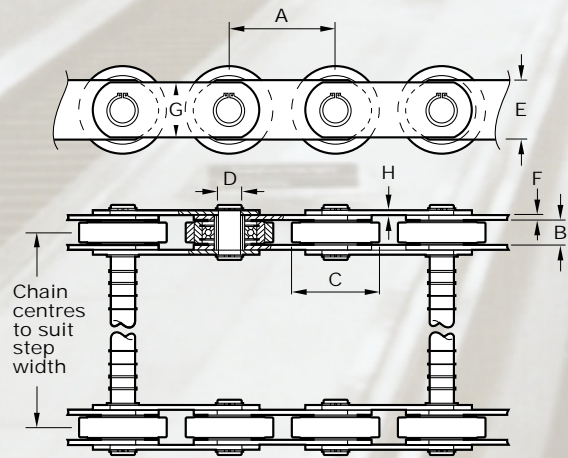


BUSH TYPE  
Nominal Dimensions (mm)

Series	Pitch (mm) A	Inside width (mm) B	Roller Dia. (mm) C	Pin Dia. (nominal) D	Step Bush Bore D1	Inner Plate height E	Inner Plate thick F	Outer Plate height G	Outer Plate thick H	Breaking Load (kN)	Types
E 301	100.00	25.40	25.40	12.67	15.13	37.10	5.50	37.10	5.50	186	Fiam
E 302	67.74	30.98	28.01	14.24	22.07	38.36	4.92	32.00	4.92	137	Otis
E 303	67.74	25.40	28.01	14.24	22.07	38.36	4.92	32.00	4.92	137	Otis
E 304	68.40	20.50	31.95	14.29	23.62	38.85	4.90	32.00	4.90	140	-
E 305	66.80	25.25	27.95	14.00	22.15	38.85	4.90	32.00	4.90	140	Otis

## E 400 SERIES

Ladder / axle assembly chains supplied for use on light medium duty store type escalators.



LADDER TYPE  
Nominal Dimensions (mm)

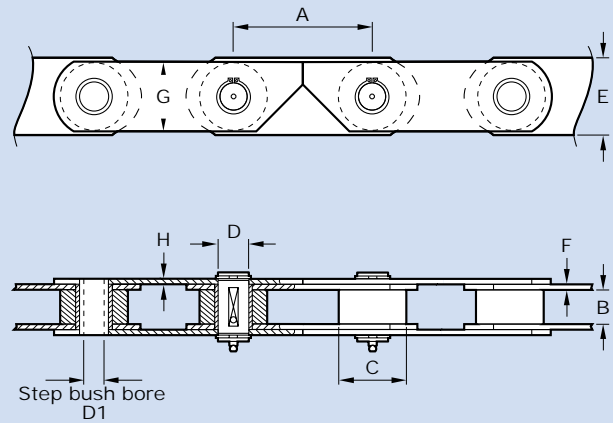
Series	Pitch (mm) A	Inside width (mm) B	Roller Dia. (mm) C	Pin Dia. (nominal) D	Inner Plate height E	Inner Plate thick F	Outer Plate height G	Outer Plate thick H	Breaking Load (kN)
E 401	135.46	31.87	39.95	20.10	45.25	5.02	45.25	5.02	220
E 404	135.46	23.65	106.20	32.00	69.50	5.00	69.50	4.00	170
E 405	135.46	23.92	75.95	12.60	38.05	4.62	31.75	4.68	102
E 408	135.46	23.15	75.95	12.60	38.05	4.68	31.75	4.68	102
E 409	135.46	23.95	76.00	15.10	40.00	4.97	31.75	4.69	100
E 410	135.46	30.60	65.85	29.99	74.00	6.00	68.25	6.00	282
E 411	135.46	25.20	76.00	19.99	45.25	6.00	45.25	6.00	148
E 412	135.46	41.98	70.10	39.99	90.50	6.05	80.50	6.05	292
E 413	135.46	32.10	40.05	20.12	45.00	4.95	40.00	4.95	123
E 414	135.46	23.25	101.35	21.99	57.15	4.75	50.18	4.75	156
E 415	135.46	30.82	65.85	29.99	74.00	6.00	68.25	5.70	250
E 416	135.46	30.82	65.85	29.99	74.00	6.00	68.25	5.70	250

# Escalator industry - E Series

# RENOLD

## E 500 SERIES

Heavy duty, public service escalators for Metro / transit systems, airport and railways.

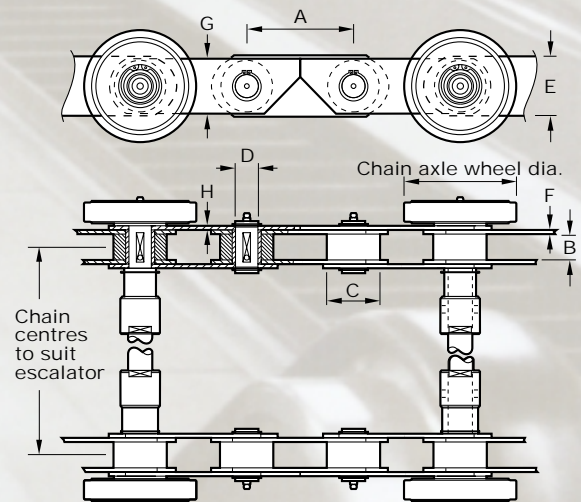


HEAVY DUTY TYPE  
Nominal Dimensions (mm)

Series	Pitch (mm) A	Inside width (mm) B	Roller Dia. (mm) C	Pin Dia. (nominal) D	Step Bush Bore D1	Inner Plate height E	Inner Plate thick F	Outer Plate height G	Outer Plate thick H	Breaking Load (kN)
E 501	135.46	31.00	47.95	29.74	n/a	70.00	6.70	63.00	6.70	263
E 502	80.00	25.40	48.21	30.11	22.06	70.00	6.35	70.00	6.35	245
E 503	80.00	19.56	48.21	30.11	22.06	60.00	4.95	60.00	4.95	157
E 504	100.00	25.70	25.35	14.62	n/a	40.25	5.95	40.25	4.90	205
E 505	101.25	45.75	48.21	29.24	n/a	70.00	12.15	70.00	10.15	700
E 506	101.25	25.40	39.97	22.00	n/a	45.25	5.95	45.25	5.95	202
E 507	101.25	29.75	39.95	22.00	n/a	60.40	6.95	60.40	6.95	283
E 508	101.25	29.75	39.95	22.00	n/a	60.40	6.95	60.40	6.95	283
E 509	100.00	25.40	25.35	14.62	n/a	37.75	5.95	37.75	4.95	202
E 510	135.45	33.07	85.59	42.67	31.97	88.9	9.52	76.2	9.52	343
E 511	135.45	33.07	85.59	44.25	31.97	95.25	6.35	76.2	6.35	267
E 512	135.45	32.84	38.04	28.19	20.70	60.32	9.52	60.32	9.525	321
E 513	135.45	32.53	34.87	44.25	31.97	107.95	6.35	95.25	6.35	267
E 514	133.33	34.80	64.00	31.98	n/a	80.50	7.00	80.50	6.00	340

## E 600 SERIES

Heavy duty public service escalators supplied as 'ladders' / axle assemblies.



HEAVY DUTY LADDER TYPE  
Nominal Dimensions (mm)

Series	Pitch (mm) A	Inside width (mm) B	Roller Dia. (mm) C	Pin Dia. (nominal) D	Chain axle Dia.	Inner Plate height E	Inner Plate thick F	Outer Plate height G	Outer Plate thick H	Breaking Load (kN)
E 602	135.46	29.81	69.94	39.97	22.21	90.50	6.05	80.50	6.05	396
E 603	135.46	48.20	69.94	41.97	22.21	115.50	6.05	105.50	6.05	596
E 606	135.45	29.69	70.10	39.95	29.97	90.50	6.04	80.51	6.04	360
E 607	135.45	30.40	70.10	41.96	29.97	115.49	6.04	105.51	6.04	515

# Escalator industry - Renolube step chain

## RENOLUBE - ESCALATOR STEP CHAIN

Renolube Escalator Chain has been developed as a result of extensive prototype testing in arduous applications to exceed the industry's ever increasing demand for lower service costs and longer lifetime operation.

With over 50 years' experience, Renold is recognised as one of the world's leading manufacturers of escalator chains.

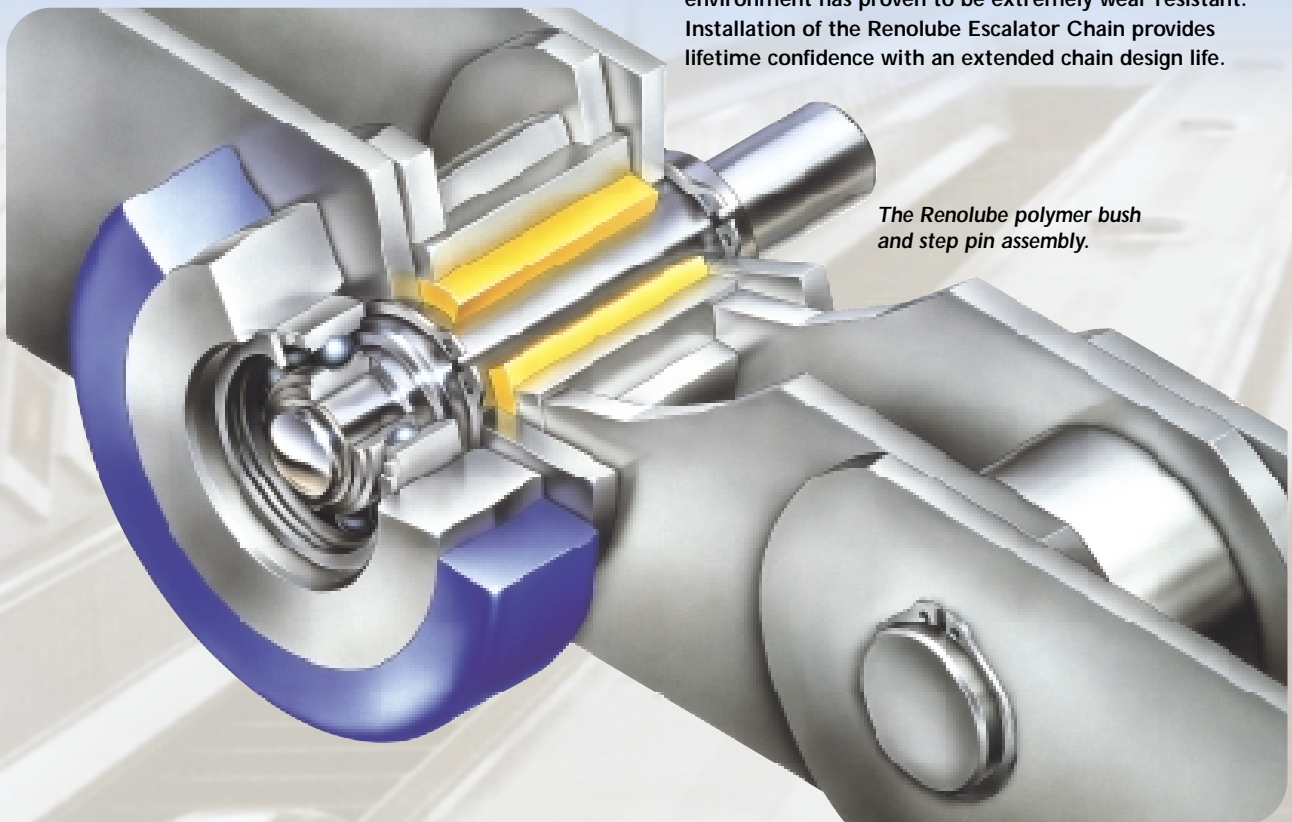
The Renolube polymer bush, in conjunction with a specially designed bearing pin, has been formulated to ensure maximum lifetime operation.

The principle advantages of Renolube are:-

- Substantially lower life cycle costs with development and field tests indicating a life in excess of 20 years.
- Cleaner environment because of reduced free grease and oil lubrication.
- Significantly lower service costs, in that periodic grease and oil lubrication is not required.
- Stable and predictable wear rates are a particular feature of Renolube when compared to conventionally oiled and greased chains, which can be prone to random failure.

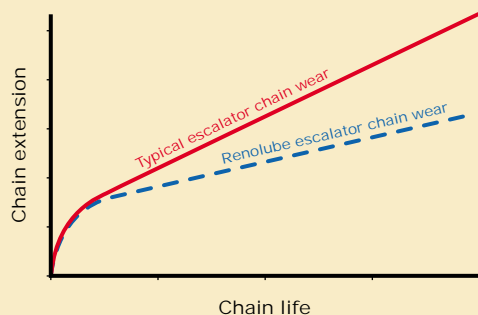
## ENDURANCE

Renolube Escalator Chain in the public service environment has proven to be extremely wear resistant. Installation of the Renolube Escalator Chain provides lifetime confidence with an extended chain design life.



*The Renolube polymer bush and step pin assembly.*

## TYPICAL WEAR / LIFE



## ECONOMY

Renolube offers a fully cost effective solution when replacing grease lubrication systems, thus considerably reducing expensive maintenance and life cycle costs.

## ENVIRONMENT AND SAFETY

The elimination of copious amounts of lubricating oils and grease creates a cleaner and safer environment, thereby reducing fire risk.

# Unique quality and safety

# RENOLD

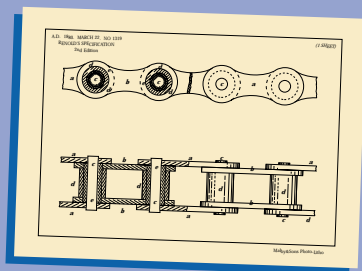
## 'IN A CLASS OF ITS OWN'

Renold, the inventor of Bush Roller Chain has led the world in chain technology for more than a century.



Only products designed and supplied to our specification carry the MARK OF EXCELLENCE, 'RENOLD'. You can be sure that when you choose such a product, Renold Service, Quality, Value for Money and LONG LIFE PERFORMANCE are guaranteed.

Original patent drawing 1880



## A UNIQUE SERVICE



Renold, the premier chain company is dedicated to providing national and global customers with products to the ultimate of specification and design, manufactured to exceed the highest international standards.

Investment in manufacturing and process technology, combined with an international sales and distribution network, places Renold's commitment to the development of chain products and customer service at the forefront of the industry. Renold's 16 national sales companies and over 70 country distributors around the world have direct access to extensive Renold design, test and manufacturing facilities, enabling the chain required to be promptly specified and produced. Renold, the power transmission specialists, provide a worldwide customer orientated product service.

## CONSISTENCY

Only materials that meet the Renold exacting specifications are used for the manufacture of our chain components.

*Stringent process control at every stage of production including component manufacture, heat treatment, and assembly, ensure the consistent quality of all Renold Chain.*



*Chains are proof loaded, resulting in minimum initial wear, greater fatigue resistance and improved wear performance.*



*Corrosion protection and long life are achieved by automatically coating chains with a specially formulated lubricant. Chain lubrication is one of the most important factors in achieving a long and trouble free service life. Renold can advise the correct method to suit your needs.*



## QUALITY

Our commitment to quality ensures that Renold Transmission and Conveyor Chain conforms to and surpasses the highest international standards of manufacture and design, including approval by the American Petroleum Institute.

All of our manufacturing systems conform to API and ISO9001.



Renold employees are fully trained to ensure all products meet the unique Renold specification.



*We also manufacture to the specifications required by API, BAe, CAA, LONDON UNDERGROUND, ROLLS-ROYCE and JAGUAR.*

# RENOLD INVEST IN OUR STRENGTH



## RENOLD WORLDWIDE

### AUSTRALIA

Melbourne (Victoria),  
Tel + 61 (03) 9262 3333 Fax + 61 (03) 9561 8561  
*e-mail*: melcag@renold.com.au *web*: <http://www.renold.com.au>  
also at: Sydney, Brisbane, Adelaide, Perth, Newcastle, Wollongong, Townsville

### AUSTRIA

Vienna,  
Tel + 43 (0) 13303484 Fax + 43 (0) 13303484-5  
also at: Kisköros (Hungary),  
Jaroslavice (Czech Republic)

### BELGIUM

Brussels,  
Tel + 32 (0) 2 201 1262 Fax + 32 (0) 2 203 2210 *e-mail*: info@renold.be.

### CANADA

Brantford (Ontario),  
Tel + 1 519 756 6118 Fax + 1 519 756 1767  
also at: Montreal

### DENMARK

Brøndby (Copenhagen),  
Tel + 45 43 45 26 11 Fax + 45 43 45 65 92

### FRANCE

Seclin,  
Tel + 33 (0) 320 16 29 29 Fax + 33 (0) 320 16 29 00

### GERMANY

Einbeck,  
Tel + 49 (0) 5562 81248 Fax + 49 (0) 5562 81130  
*e-mail*: arnoldandstolzberg@t-online.de  
also at: Hamburg, Bielefeld, Düsseldorf, Frankfurt, Kornwestheim, Berlin

### MALAYSIA

Petaling Jaya,  
Tel + 603 731 5880 Fax + 603 731 5881  
also at: Johor Bharu, Ipoh, Butterworth

### NETHERLANDS

Amsterdam,  
Tel + 31 (0)20 6146661 Fax + 31 (0)20 6146391

### NEW ZEALAND

Auckland,  
Tel + 64 9 570 1204 Fax + 64 9 570 1205 *web*: <http://www.renold.com.au>  
also at: Christchurch

### SINGAPORE

Singapore,  
Tel + 65 760 2422 Fax + 65 760 1507  
*e-mail*: renoldsp@mbox5.singnet.com.sg

### SOUTH AFRICA

Benoni (Johannesburg),  
Tel + 27 11 845 1535 Fax + 27 11 845 3645  
also at: Witbank, Durban, Richards Bay, Port Elizabeth, East London, Cape Town

### SWEDEN

Sollentuna (Stockholm),  
Tel + 46 (0) 8 6230080 Fax + 46 (0) 8 6230075 *e-mail*: info@renold.se

### SWITZERLAND

Dübendorf (Zürich),  
Tel + 41 1 821 45 85 Fax + 41 1 821 46 03  
also at: Crissier (Lausanne)

### UK

Burton upon Trent,  
Tel + 44 (0) 1283 512940 Fax + 44 (0) 1283 512628  
*e-mail*: ukchain@renold.com

### USA

Cincinnati,  
Tel + 1 513 346 7510 Fax + 1 513 346 7520

### WEB

<http://www.renold.com>

### E-MAIL

*e-mail*: [enquiry@renold.com](mailto:enquiry@renold.com)

For other country distributors please contact Renold UK.

Whilst all reasonable care is compiling the information contained in this brochure is taken, no responsibility is accepted for printing errors.  
All information contained in this brochure is subject to change after the date of publication.

# RENOLD