

Interchange Guide

THK HSR LM GUIDE TO THOMSON 500 SERIES BALL PROFILE RAIL INTERCHANGE SHEET	
THK HSR	THOMSON 500 SERIES BALL
<p><b>Assembly Part Number</b></p> $\frac{\text{HSR}}{1} \frac{20}{2} \frac{A}{3} \frac{2}{4} \frac{SS}{9} \frac{C1}{5} + \frac{1000}{7} \frac{P}{6}$	<p><b>Carriage Part Number</b></p> $\frac{(2) \text{ pcs}}{4} \frac{511}{1} \frac{P}{6} \frac{20}{2} \frac{A}{3} \frac{1}{5} \frac{Z}{9}$ <p>and</p> <p><b>Rail Part Number</b></p> $\frac{(1) \text{ pc}}{4} \frac{521}{1} \frac{P}{6} \frac{20}{2} \frac{A}{8} \frac{1000}{7}$
<p><b>Carriage Part Number</b></p> $\frac{\text{HSR}}{1} \frac{20}{2} \frac{A}{3} \frac{UU}{9}$	<p><b>Carriage Part Number</b></p> $\frac{511}{1} \frac{P}{6} \frac{20}{2} \frac{A}{3} \frac{1}{4}$
<p><b>Rail Part Number</b></p> $\frac{\text{HSR}}{1} \frac{20}{2} + \frac{1000L}{7}$	<p><b>Rail Part Number</b></p> $\frac{521}{1} \frac{P}{6} \frac{20}{2} \frac{A}{8} \frac{1000}{7}$

1. TYPE	
THK	THOMSON 500 SERIES BALL
Carriage - HSR Rail - HSR	Carriage - 511 Rail - 521
2. SIZE	
THK	THOMSON 500 SERIES BALL
15 20 25 30 35 45 55	15 20 25 30 35 45 N/A
3. CARRIAGE STYLE	
THK	THOMSON 500 SERIES BALL
A B CA CB LA LB HA HB R TR LR HTR	A A A A B B B B E E F F
4. CARRIAGES PER RAIL	

5. PRELOAD	
THK	THOMSON 500 SERIES BALL
blank C1 C2 N/A	0 1 2 3
6. ACCURACY	
THK	THOMSON 500 SERIES BALL
blank H P SP UP	H H P U U
7. LENGTH	
THK	THOMSON 500 SERIES BALL
xxxxL	xxxx
8. RAIL STYLE	
THK	THOMSON 500 SERIES BALL
blank K N/A	A U C
9. SEALS	
THK	THOMSON 500 SERIES BALL
SS UU ZZ OZ N/A	blank blank Z N L



## Interchange Guide

STAR BALL RAIL SYSTEMS TO THOMSON 500 SERIES BALL INTERCHANGE SHEET	
STAR	THOMSON
<p><b>Carriage Part Number</b></p> $\frac{16}{1} \frac{51}{2} - \frac{8}{3} \frac{1}{4} \frac{2}{5} - \frac{10}{7}$ <p><b>Rail Part Number</b></p> $\frac{16}{1} \frac{05}{2} - \frac{8}{3} \frac{0}{5} \frac{2}{5} - 31, \frac{1000}{6}$	<p><b>Carriage Part Number</b></p> $\frac{511}{1} \frac{P}{5} \frac{20}{3} \frac{A}{2} \frac{1}{4}$ <p><b>Rail Part Number</b></p> $\frac{521}{1} \frac{P}{5} \frac{20}{3} \frac{A}{2} + \frac{1000}{6}$

1. TYPE		
	STAR	THOMSON
	16	Carriage - 511 Rail - 521
2. STYLE		
	STAR	THOMSON
CARRIAGE	03	B
	04	A
	21	E
	22	C
	23	D
	24	F
	51	A
	53	B
66	G	
RAIL	1605-X0X-XX	A + 531HP
	1605-X3X-XX	C + 531RCS (size 25 & up)
	1605-X6X-XX	C + 531RCS (size 25 & up)
	1607-XXX-XX	U
	1645-X03-XX	AD + 531HP
	1645-X33-XX	CD + 531RCS (size 25 & up)
1647-X03-XX	UD	

3. SIZE	
STAR	THOMSON
1	15
2	25
3	35
4	45
5	N/A
6	N/A
7	30
8	20
4. PRELOAD	
STAR	THOMSON
1	1
2	2
3	3
9	0
5. ACCURACY	
STAR	THOMSON
1	U
2	P
3	H
4	H
9	0
6. RAIL LENGTH	
STAR	THOMSON
XXXX	+XXXXX
7. REVISION	
STAR	THOMSON
10	blank
20	blank

Profile Rail Linear Guides

STAR ROLLER RAIL SYSTEM TO THOMSON 500 SERIES ROLLER PROFILE RAIL INTERCHANGE SHEET	
STAR	THOMSON
<p><b>Carriage Part Number</b></p> $\frac{18}{1} \frac{51}{2} - \frac{2}{3} \frac{1}{4} \frac{2}{5} - \frac{10}{7}$	<p><b>Carriage Part Number</b></p> $\frac{512}{1} \frac{P}{5} \frac{20}{3} \frac{A}{2} \frac{1}{4}$
<p><b>Rail Part Number</b></p> $\frac{18}{1} \frac{05}{2} - \frac{2}{3} \frac{0}{8} \frac{2}{5} - \frac{31}{9} \frac{1000}{6}$	<p><b>Rail Part Number</b></p> $\frac{522}{1} \frac{P}{5} \frac{25}{3} \frac{A}{2} + \frac{1000}{6}$

1. TYPE		
STAR	THOMSON	
18	Carriage - 512 Rail - 522	
2. STYLE		
STAR	THOMSON	
CARRIAGE	51	A
	53	B
	21	C
	24	D
Rail - see RAIL STYLE - 1, 2, 8 and 9 Section		
3. SIZE		
STAR	THOMSON	
2	25	
3	35	
4	45	
5	55	
6	65	
4. PRELOAD		
STAR	THOMSON	
1*	1	
2	2	
3	3	
5. ACCURACY		
STAR	THOMSON	
3	N/A	
2	P	
1	S	
9	U	

6. LENGTH	
STAR	THOMSON
XXXX	+XXXX
7. VERSION	
STAR	THOMSON
10	blank
13 (ALUMINIUM END CAP)	N/A
18	ES4
60	D-Thin Dense Chrome
RAIL STYLE 1,2,8 AND 9	
STAR	THOMSON
1805-x2x-31	C
1805-x3x-31	C + 532RCS (size 25)
1805-x3x-61	C + 532RCS (size 35 & up)
1805-x5x-31	A
1805-x6x-31	C + 532RCS (size 25)
1805-x6x-61	C + 532RCS (size 35 & up)
1806-x5x-31	A
1807-x0x-11	U
1845-x1x-31	A + Thin Dense Chrome
1845-x5x-31	C + Thin Dense Chrome + 532RCS (size 25)
1845-x5x-61	C + Thin Dense Chrome + 532RCS (size 35 & up)
1845-x8x-31	C + Thin Dense Chrome + 532RCS
1847-x1x-31	U + Thin Dense Chrome
18xx-xxx-41	Coated End for Thin Dense Chrome options in place of -31
18xx-xxx-71	Coated End for Thin Dense Chrome options in place of -61



**The Thomson 500 Series Ball Profile Rail replaces the Thomson AccuGlide Profile Rail.**

The 500 Series Ball Profile Rail provides the following advantages when compared to AccuGlide:

- Increased rail straightness through advanced grinding technologies
- Simpler installation and greater accuracy on joint-free rails up to 6 meters long
- Smoother, quieter movement through insert molded recirculation paths, minimized transitions and optimized geometries
- Increased load capacity from longer ball paths and total number of rolling elements
- On-site field modifiable and upgradeable easy-to-use modular carriage and seal designs
- Customization with expanded accessories offering

THOMSON AccuGlide* TO THOMSON 500 SERIES BALL PROFILE RAIL INTERCHANGE SHEET	
THOMSON AccuGlide*	THOMSON 500 SERIES BALL
<b>Assembly Part Number</b> $\frac{CG}{1} \frac{20}{2} \frac{AA}{3} \frac{B}{4} \frac{P}{5} \frac{\quad}{8}$	<b>Carriage Part Number</b> $\frac{511}{1} \frac{P}{5} \frac{20}{2} \frac{A}{3} \frac{1}{4} \frac{\quad}{8}$
<b>Rail Part Number</b> $\frac{RG}{1} \frac{20}{2} \frac{P}{5} \frac{L1000}{6} \frac{\quad}{8}$	<b>Rail Part Number</b> $\frac{521}{1} \frac{P}{5} \frac{20}{2} \frac{A}{7} \frac{\quad}{8} \frac{1000}{6}$

1. TYPE	
AccuGlide	THOMSON 500 SERIES BALL
Carriage - CG Rail - RG	Carriage - 511 Rail - 521
2. SIZE	
AccuGlide	THOMSON 500 SERIES BALL
15	15
20	20
25	25
30	30
35	35
45	45
55	N/A
3. CARRIAGE STYLE	
AccuGlide	THOMSON 500 SERIES BALL
AA	A
BA	B
CE	C
DE	D
EE	E
HE	F
4. PRELOAD	
AccuGlide	THOMSON 500 SERIES BALL
A	0
B	1
C	2
D	3

5. ACCURACY	
AccuGlide	THOMSON 500 SERIES BALL
N	H
H	H
P	P
S	U
U	U
6. LENGTH	
AccuGlide	THOMSON 500 SERIES BALL
Lxxxx	xxxx
7. RAIL STYLE	
AccuGlide	THOMSON 500 SERIES BALL
-	A
N/A	U
N/A	C
8. OPTIONS <sup>1</sup>	
AccuGlide	THOMSON 500 SERIES BALL
A	D
C2C2 (plastic)	C (steel)
C3C3	C
D###	See pg. 132 or Consult Thomson
LDS	Standard Longitudinal Seal is low drag
LL	L
M###	See pg. 132 or Consult Thomson
R2R2	E
ZZ	Z
N/A	V (Viton Wiper)
N/A	N (Oil Reservoir)

Profile Rail Linear Guides

**The Thomson 500 Series Roller Profile Rail replaces the Thomson AccuMax Profile Rail**

The 500 Series Roller Profile Rail provides the following advantages when compared to AccuMax:

- Increased rail straightness through advanced grinding technologies
- Simpler installation and greater accuracy on joint-free rails up to 6 meters long
- Smoother, quieter movement through insert molded recirculation paths, minimized transitions and optimized geometries
- Increased load capacity from longer roller paths and total number of rolling elements
- Expanded offering of ultra-rigid roller carriage sizes and styles for all applications
- On-site field modifiable and upgradeable easy-to-use modular carriage and seal designs
- Customization with expanded accessories offering

THOMSON AccuMax* TO THOMSON 500 SERIES ROLLER PROFILE RAIL INTERCHANGE SHEET	
THOMSON AccuMAX*	THOMSON 500 SERIES ROLLER
<b>Assembly Part Number</b> CM $\frac{35}{1}$ $\frac{AA}{2}$ $\frac{B}{3}$ $\frac{S}{4}$ $\frac{5}{5}$ $\frac{8}{8}$	<b>Carriage Part Number</b> 512 $\frac{S}{1}$ $\frac{35}{5}$ $\frac{A}{2}$ $\frac{1}{3}$ $\frac{8}{4}$
<b>Rail Part Number</b> RM $\frac{35}{1}$ $\frac{S}{2}$ $\frac{L1000}{5}$ $\frac{8}{6}$	<b>Rail Part Number</b> 522 $\frac{S}{1}$ $\frac{35}{5}$ $\frac{A}{2}$ $\frac{1000}{7}$ $\frac{8}{8}$ $\frac{6}{6}$

1. TYPE	
AccuMax	THOMSON 500 SERIES ROLLER
Carriage - CM Rail - RM	Carriage - 512 Rail - 522
2. SIZE	
AccuMax	THOMSON 500 SERIES ROLLER
N/A	25
35	35
45	45
55	55
N/A	65
3. CARRIAGE STYLE	
AccuMax	THOMSON 500 SERIES ROLLER
AA	A
N/A	B
N/A	C
N/A	D
4. PRELOAD	
AccuMax	THOMSON 500 SERIES ROLLER
B	1
C	2
D	3

5. ACCURACY	
AccuMax	THOMSON 500 SERIES ROLLER
P	P
S	S
U	U
6. LENGTH	
AccuMax	THOMSON 500 SERIES ROLLER
Lxxx	xxxx
7. RAIL STYLE	
AccuMax	THOMSON 500 SERIES ROLLER
-	A
N/A	U
N/A	C
8. OPTIONS <sup>1</sup>	
AccuMax	THOMSON 500 SERIES ROLLER
A	D
C2C2 (plastic)	C (steel)
C3C3	C
D###	See pg. 132 or Consult Thomson
LDS	Standard Longitudinal Seal is low drag
LL	L
M###	See pg. 132 or Consult Thomson
R2R2	E
ZZ	Z
N/A	V (Viton Wiper)



THK SHS LM GUIDE TO THOMSON 400 SERIES BALL CAGE PROFILE RAIL INTERCHANGE SHEET	
THK SHS	THOMSON 400 SERIES
<p><b>Assembly Part Number</b></p> $\frac{\text{SHS}}{1} \frac{25}{2} \frac{\text{LC}}{3} \frac{2}{4} \frac{\text{DD}}{9} \frac{\text{C1}}{5} + \frac{1200\text{L}}{7} \frac{\text{H}}{6}$	<p><b>Carriage Part Number</b></p> $\frac{(2)}{4} \text{ pcs } \frac{413^*}{1} \frac{\text{H}}{6} \frac{25}{2} \frac{\text{B}}{3} \frac{1}{5} \frac{\text{W}}{9}$ <p>and</p> <p><b>Rail Part Number</b></p> $\frac{(1)}{4} \text{ pc } \frac{421}{1} \frac{\text{H}}{6} \frac{25}{2} \frac{\text{A}}{8} \frac{1200}{7}$
<p><b>Carriage Part Number</b></p> $\frac{\text{SHS}}{1} \frac{25}{2} \frac{\text{LC}}{3} \frac{2}{4} \frac{\text{SS}}{9} \frac{\text{C1}}{5} \frac{\text{H}}{6} \text{ (GK) BLOCK}$	<p><b>Carriage Part Number</b></p> $\frac{413^*}{1} \frac{\text{H}}{6} \frac{25}{2} \frac{\text{B}}{3} \frac{1}{5}$
<p><b>Rail Part Number</b></p> $\frac{\text{SHS}}{1} \frac{25}{2} \frac{-1200\text{L}}{7} \frac{\text{H}}{6} \text{ (GK) RAIL}$	<p><b>Rail Part Number</b></p> $\frac{421}{1} \frac{\text{H}}{6} \frac{25}{2} \frac{\text{A}}{8} \frac{1000}{7}$

1. TYPE	
THK	THOMSON 400 SERIES
Carriage - SHS	Carriage - 413*
Rail - SHS	Rail - 421
2. SIZE	
THK	THOMSON 400 SERIES
15	15
20	20
25	25
30	30
35	35
45	45
55	55
65	N/A
3. CARRIAGE STYLE	
THK	THOMSON 400 SERIES
C	A
LC	B
V	C
LV	D
R	E
LR	F
4. CARRIAGES PER RAIL	

5. PRELOAD	
THK	THOMSON 400 SERIES
blank	0
C1	1
C0	N/A
6. ACCURACY	
THK	THOMSON 400 SERIES
blank	N
H	H
7. LENGTH	
THK	THOMSON 400 SERIES
xxxxL	xxxx
8. RAIL STYLE	
THK	THOMSON 400 SERIES
blank	A
K	U
9. SEALS	
THK	THOMSON 400 SERIES
UU	blank (standard)
SS	blank (standard)
DD	W
ZZ	Z
KK	WZ

\* Thomson 400 Series carriages are available in both Ball (411) and Ball cage (413) design whereas, THK SHS carriages are only available in cage design. Thomson 400 Series Ball carriages can be substituted for THK SHS carriages if the application does not require low noise at high speeds. Ball carriages are more economical and dimensionally interchangeable to THK SHS carriages. When selecting the carriage type, 413 can be replaced by 411 to change from ball cage to ball type.

## Profile Rail Linear Guides

## Common AccuGlide Options

Carriage Options	500 Series Option
C2C2	C
C3C3	C
D035	ES1
D047	ES10*
D065	ES2
D086	ES1ES10*
D087	ES8 or ES1ES10*
D088	ES2ES10*
D089	ES9 or ES2ES10*
D134	ZCES1
D135	CES1
D147	CES10*
D150	ZC
D164	ZCES2
D165	CES2
D186	CES1ES10*
D187	CES7 or CES10*
D188	CES10*
D189	CES9 or CES2ES10*
D192	LCES9 or LCES2ES10*
D234	LES1
D235	LZES1
D236	LZCES1
D237	LCES1
D241	LC
D251	LZC
D262	LES2
D263	LCES2
D264	ZES2
D265	LZES2
D266	LZCES2
D267	LCES2
D274	LES12
D275	LZES12
D289	LES9 or LES2ES10*
D292	LZES9 or LZES2ES10*
LDS	now standard
LL	L
LLZZ	LZ
M035	ES3
M038	CES3
M041	1/4-28 in side options: ES7 or ES10 option*
M043	C + 1/4-28 in side options: CES7 or CES10 option*
M047	ES7 or ES10*
M049	CES7 or CES10*
M063	CES4
M065	ES4
M075	ES14
M077	ES14 + ES7
M087	ES5
M088	ES4ES10
M089	ES6
M094	ES7 + ES15
M095	ES15

Carriage Options	500 Series Option
M097	ZES15
M099	CES15
M125	ES11
M134	ES6
M147	CES7
M168	Duralloy
M171	Z
M183	ZES5
M186	ES5
M187	CES5
M188	CES10*
M189	CES6
M192	ZES6
M209	LES6
M234	LES3
M235	LZES3
M236	LZCES3
M241	LC
M242	Duralloy + L
M249	LCES7 or LCES10*
M251	LZC
M263	LES4
M264	ZES4
M265	LZES4
M266	LZCES4
M267	LCES4
M275	LZES14G1
M287	LES5
M289	LES6
M290	LCES6
M292	LZES6
M294	GS
ZZ	Z

\* ES10 option is side lube in end cap, size 15=M3, size 20 and up=M6.

Rail Options	500 Series Designation
D080	DH1
D085	DH2
D181	EDH1
D185	EDH2
D187	EDH2
M080	DH3
M082	EDH3
M083	EDH3
M085	DH4
M088	EDH4
M091	EDH4
R2R2	E
R3R3	E



## Thomson 400 Series Express

Thomson now stocks the most popular 400 Series profile linear guide and rail SKUs, ready for same- or next-day shipment from our Marengo, IL, facility.

***Get your ideal linear solution – real fast!***



PART NUMBER	DESCRIPTION
411N15A0	400 SERIES BALL STANDARD FLANGED CARRIAGE
411N15C0	400 SERIES BALL STANDARD NARROW CARRIAGE
411N20A0	400 SERIES BALL STANDARD FLANGED CARRIAGE
411N20C0	400 SERIES BALL STANDARD NARROW CARRIAGE
411N25A0	400 SERIES BALL STANDARD FLANGED CARRIAGE
411N25C0	400 SERIES BALL STANDARD NARROW CARRIAGE
411N30A0	400 SERIES BALL STANDARD FLANGED CARRIAGE
411N35C0	400 SERIES BALL STANDARD NARROW CARRIAGE
421N15ARL4000	400 SERIES STANDARD BALL RAIL W/THROUGH HOLES, TOP MOUNTED
421N20ARL4000	400 SERIES STANDARD BALL RAIL W/THROUGH HOLES, TOP MOUNTED
421N25ARL4000	400 SERIES STANDARD BALL RAIL W/THROUGH HOLES, TOP MOUNTED
421N30ARL4000	400 SERIES STANDARD BALL RAIL W/THROUGH HOLES, TOP MOUNTED
421N35ARL4000	400 SERIES STANDARD BALL RAIL W/THROUGH HOLES, TOP MOUNTED



- Immediate shipments limited to 25 carriages per order per SKU.
- Rail shipments limited to 10 cuts per order per SKU.

### THOMSON USA, MEXICO & CANADA

Phone: 1-540-633-3549

Fax: 1-540-633-0294

E-mail: [thomson@thomsonlinear.com](mailto:thomson@thomsonlinear.com)



**USA, CANADA and MEXICO**

Thomson  
203A West Rock Road  
Radford, VA 24141, USA  
Phone: 1-540-633-3549  
Fax: 1-540-633-0294  
E-mail: thomson@thomsonlinear.com  
Literature: literature.thomsonlinear.com

**EUROPE**

**United Kingdom**

Thomson  
Office 9, The Barns  
Caddsdow Business Park  
Bideford, Devon, EX39 3BT  
Phone: +44 1271 334 500  
E-mail: sales.uk@thomsonlinear.com

**Germany**

Thomson  
Nürtinger Straße 70  
72649 Wolfschlügen  
Phone: +49 7022 504 403  
Fax: +49 7022 504 405  
E-mail: sales.germany@thomsonlinear.com

**France**

Thomson  
Phone: +33 243 50 03 30  
E-mail: sales.france@thomsonlinear.com

**Italy**

Thomson  
Via per Cinisello 95/97  
20834 Nova Milanese (MB)  
Phone: +39 0362 366406  
Fax: +39 0362 276790  
E-mail: sales.italy@thomsonlinear.com

**Spain**

Thomson  
E-mail: sales.esm@thomsonlinear.com

**Sweden**

Thomson  
Estridsväg 10  
29109 Kristianstad  
Phone: +46 44 590 2400  
Fax: +46 44 590 2585  
E-mail: sales.scandinavia@thomsonlinear.com

**ASIA**

**Asia Pacific**

Thomson  
E-mail: sales.apac@thomsonlinear.com

**China**

Thomson  
Rm 805, Scitech Tower  
22 Jianguomen Wai Street  
Beijing 100004  
Phone: +86 400 606 1805  
Fax: +86 10 6515 0263  
E-mail: sales.china@thomsonlinear.com

**India**

Kollmorgen – Div. of Altra Industrial Motion  
India Private Limited  
Unit no. 304, Pride Gateway,  
Opp. D-Mart,  
Baner Road, Pune, 411045  
Maharashtra  
Phone: +91 20 67349500  
E-mail: sales.india@kollmorgen.com

**Japan**

Thomson  
Minami-Kaneden 2-12-23, Suita  
Osaka 564-0044 Japan  
Phone: +81 6 6386 8001  
Fax: +81 6 6386 5022  
E-mail: csjapan@scgap.com

**South Korea**

Thomson  
3033 ASEM Tower (Samsung-dong)  
517 Yeongdong-daero  
Gangnam-gu, Seoul, South Korea (06164)  
Phone: + 82 2 6001 3223 & 3244  
E-mail: sales.korea@thomsonlinear.com

**SOUTH AMERICA**

**Brazil**

Thomson  
Av. João Paulo Ablas, 2970  
Jardim da Glória - Cotia SP - CEP: 06711-250  
Phone: +55 11 4615 6300  
E-mail: sales.brasil@thomsonlinear.com

www.thomsonlinear.com

Profile\_Rail\_Linear\_Guides\_CTEN-0001-13 | 20210607KB  
Errors and technical alterations reserved. It is the responsibility of the product user to determine the suitability of this product for a specific application. All trademarks property of their respective owners. ©2021 Thomson Industries, Inc.



Linear Motion. Optimized.™