



**thompson**  
COUPLINGS

**TCAE**



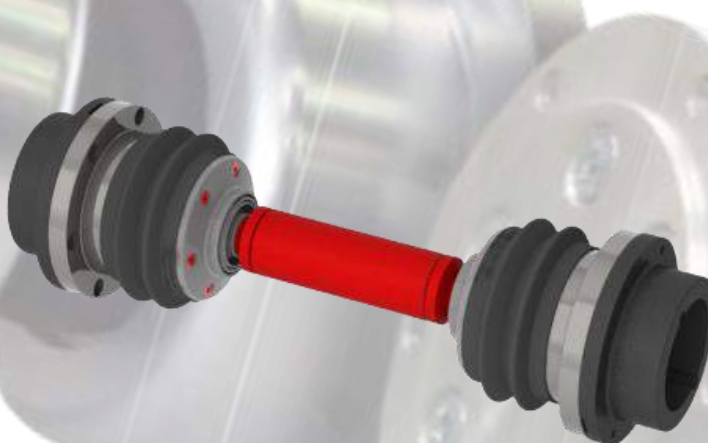
**TCAE-S SERIES**



**TCAE-R SERIES**



**TCAE-V SERIES**



**TCAE-L SERIES**

**LEADING COUPLING AND DRIVELINE SOLUTIONS-THE COUPLINGS YOU CAN FIT AND FORGET**  
(Balanced to AGMA 9000-D, Grade 9)

**NO LASER ALIGNMENT**

**WORKS IN HARSH ENVIRONMENTS**

**REDUCES VIBRATION**

**NO OR LOW MAINTENANCE**

**REDUCED OPERATING & POWER COSTS**

**COMPONENTS SERIAL NUMBERED**



## Thompson Couplings



### ***TCAE-S SERIES***

A close-coupled design for applications where axial space is limited. In addition, an economical spacer design is available to extend the length of the coupling.



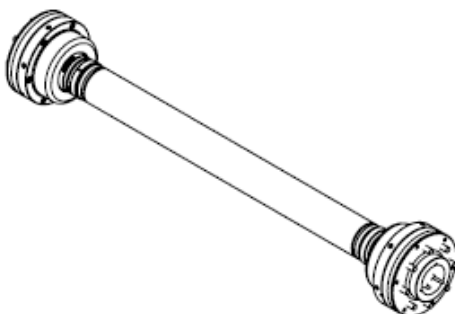
### ***TCAE-V SERIES***

A compact, heavy duty coupling with short axial dimensions capable of transmitting a high torque capacity. May be used in both horizontal and vertical applications.



### ***TCAE-R SERIES***

The regular range of couplings delivering high performance across high-speed ranges, at constant velocity. Offers a long service life, high reliability and a high transmission efficiency.



### ***TCAE-L SERIES***

The L-series makes use of either a hollow or solid shaft of varying lengths designed to the customer's requirements. The shaft may also be of a fixed or sliding type. Used where the distance between shaft ends is too large for a spacer type coupling.

### ***TCAE-CM SERIES***

Customised couplings designed to customer specifications. Contact Thompson Couplings for further information.

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# Coupling Selection Procedure

## Quick Selection Method:

The following method allows a quick estimation of the coupling size. This method is based on standard industrial electric motor drives connected to devices such as centrifugal process pumps or similar.

- a. Determine the electric motor rated power and speed (often listed on the motor nameplate)
- b. Determine the type of TCAE coupling to be used:
  - i. TCAE-S series
  - ii. TCAE-V series
  - iii. TCAE-R series
  - iv. TCAE-L series
- c. Enter the following table with the motor power and speed and coupling series type to locate the coupling size with the closest power rating. eg. motor power of 160kW running at 1,500 rpm

TCAE MODEL	Power [kW] at MSF 1.25		
	1000 rpm	1500 rpm	3000 rpm
TCAE-S-1	14	19	34
TCAE-S-2	28	39	68
TCAE-S-3	48	67	n/a **
TCAE-S-4	73	102	
TCAE-S-5	120	167	
TCAE-S-6	124	172	
TCAE-S-7	192	267	
TCAE-S-8	253	350	
TCAE-S-9	403	559	
TCAE-S-10	591	n/a **	
TCAE-S-11	840		
TCAE-S-12	1,161		
TCAE-S-13	1,550		
TCAE-S-14	2,183		

TCAE-V-00	6	8	14
TCAE-V-0	9	12	n/a **
TCAE-V-1	13	18	
TCAE-V-2	26	37	
TCAE-V-3	45	n/a **	
TCAE-V-4	68	n/a **	
TCAE-V-5	116	n/a **	
TCAE-V-6	201	278	
TCAE-V-7	268	372	
TCAE-V-8	549	762	
TCAE-V-9	757	1,050	
TCAE-V-10	1,042	n/a **	
TCAE-V-11	1,264		
TCAE-V-12	2,168		
TCAE-V-13	3,597		
TCAE-V-14	5,573		

TCAE-R-1	12	17	30
TCAE-R-2	30	42	74
TCAE-R-3	49	68	118
TCAE-R-4	77	106	184
TCAE-R-5	124	172	302
TCAE-R-6	166	230	n/a **
TCAE-R-7	240	334	
TCAE-R-8	316	442	

TCAE-L-1	12	17	30
TCAE-L-2	30	42	74
TCAE-L-3	49	68	118
TCAE-L-4	77	106	184
TCAE-L-5	124	172	302
TCAE-L-6	166	230	n/a **
TCAE-L-7	240	334	
TCAE-L-8	316	442	
TCAE-L-9	403	559	
TCAE-L-10	591	n/a **	
TCAE-L-11	840		
TCAE-L-12	1,161		
TCAE-L-13	1,550		
TCAE-L-14	2,183		

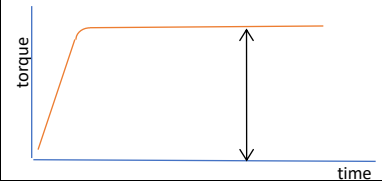
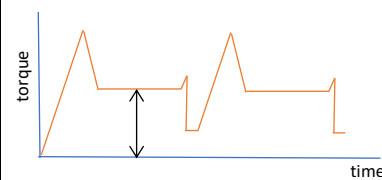
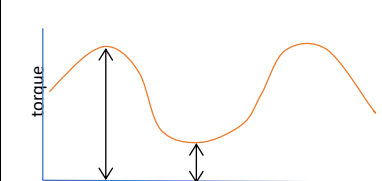
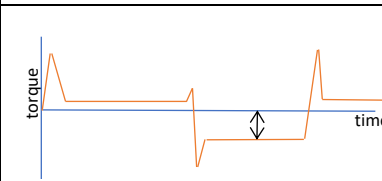
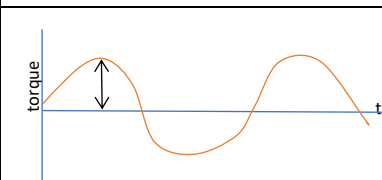
- d. The above coupling size estimation is based on a machine service factor of 1.25 to give a running life of 7,200 hours (typical running time of 8 hours per day, 25 days per month for 3 years)
- e. For other parameters refer to the following **detailed selection method**, such as:
  - i. diesel drives or turbines
  - ii. other machine service factors
  - iii. other running life requirements
  - iv. other operating angles

### Detailed Selection Method

The following method enables the user to determine the most suitable TCAE coupling for their specific application using a more comprehensive and detailed approach.

- a. Determine the system power and operating speed for the drive. It is preferable to gather as much data as possible including:
  - i. Actual consumed power of the driven device (pump, roller, gearbox etc).  
Note this is normally less than the actual rated power of the motor.
  - ii. Shaft sizes and distance between ends (DBSE).
  - iii. Operating hours or duty cycle required.
  - iv. Worst case angle and / or distance of misalignment possible.
  - v. Possible shock loading factors and/ or changes to the torque loading in operation.
  - vi. Possibility of emergency stop situations which significantly magnifies the load on the drivetrain and coupling.
- b. Many industrial systems driven by electric motors tend to be **constant** torque applications.
- c. Calculate the **nominal** drive torque as follows:  $T \text{ (Nm)} = \text{kW} \times 9550 / \text{rpm}$
- d. However, systems that start/stop regularly or have oscillatory load patterns require an average or even an RMS value to be used to determine the nominal torque. Examples of these are shown below with their corresponding nominal values:

e.

<b>Torque/Power fluctuation</b>	<b>Example</b>	<b>Nominal torque <math>T_n</math></b>
<b>Constant</b>		$T_n = \text{torque}$
<b>Fluctuates in one direction with short peak times</b>		$T_n = \text{average torque over cycle}$
<b>Fluctuates evenly in one direction</b>		$T_n = 1/3 * (T_{\min} + 2 * T_{\max})$
<b>Fluctuates forward and reverse with short peak times</b>		$T_n = \text{average torque over cycle of either forward or reverse cycle whichever is greater}$
<b>Fluctuates evenly in both forward and reverse directions</b>		$T_n = 2/3 * T_{\max}$

- f. Determine the machine duty service type,  $K_1$ . The factor  $K_1$  is governed by both the Machine Type and the Driven type. It is recommended deciding both machine factor and driven factor and using the larger of both for the value of  $K_1$ .

**MACHINE FACTOR  $K_1$ :**

<b>MACHINE USED</b>	<b>FACTOR <math>K_1</math></b>
Electric motor	1
Turbine	1
Gasoline engine 4 cyl or more	1.25
Gasoline engine 3 cyl or less	1.5
Diesel engine 4 cyl or more	2
Diesel engine 3 cyl or less	3

**DRIVEN DEVICE FACTOR  $K_1$ :**

(SEE ALSO DETAILED TABLE FOR APPLICATIONS BELOW)

DRIVEN DUTY SERVICE TYPE	FACTOR $K_1$
SMOOTH	1
LIGHT DUTY	1.25
MODERATE DUTY	1.5
MEDIUM	1.75
HEAVY DUTY	2
VERY HEAVY DUTY	2.5
EXTREME SHOCK	3

MACHINE DUTY SERVICE TYPE						
SMOOTH	LIGHT DUTY	MODERATE DUTY	MEDIUM DUTY	HEAVYDUTY	VERY HEAVY DUTY	EXTREME SHOCK
Agitators	Belt conveyors	Beaters	Concrete mixers	Barge pullers	Ball mill drive	Conveyors - reciprocating
Blowers-centrifugal	Blowers-Vane	Blowers- lobe	Dredge - screen drives	Cranes - main hoist	Crushers -ore	Conveyors - shaking/live roll
Evaporators	compressor -centrifugal	Bucket conveyor	Dredge - stacker	Cranes -reversing	Crushers -stone	Metal rolling - feed rolls
Fans . Centrifugal	Fans -Induced draft	Compressor - lobe	Dredge - cable reels	Elevator -freight	Dredge - cutter head	Metal rolling - reversing rolls
Pumps - Centrifugal	Feeders	Dredge - conveyor	Dredge - winches	Fans - cooling tower	Feeder - reciprocating	Metal rolling - hot mills
Screens - Air washer	Machine-tool drives	Fans - propellor	Elevator -bucket	Generator - welding	Machine tool - tappers	Metal, rolling - Manipulators
Steering gear	Oil industry chillers	Fans -forced draft	Hoist - bridge drive	Hammer mills	Metal forming - Table conveyors	Metal rolling - merchant mill
Stokers	Paper mill - agitators	Line shaft conveyor	Hoist - skip	Laundry washer	Metal rolling - furnace pushers	Metal rolling - piercers
Rubber plant - Tyre press opener	Paper mill - conveyors	Metal forming - slitters	Hoist - trolley drive	Machine tool - bending rolls	Metal rolling- ingot cars	Metal rolling - reelers
Woodworking machinery	Screens - Travelling water	Metal forming- wire winder	Metal forming -wire winder	Machine tool - punch press	Metal rolling - kick outs	Metal rolling - rod & bar mills
	Sewage disposal equipment	Metal rolling - coilers (cold)	Metal rolling - cooler beds	Metal forming- draw bench drive	Metal rolling - pusher rams	Metal rolling - roughing mill feed rolls
	Textile dyeing machines	Metal rolling- wire drawing	Metal rolling - edger drive	Metal forming -extruder	Metal rolling - runout tables	Metal rolling – screwdown drive rolls
		Multers	Metal rolling - reel drives	Metal rolling - coiler (hot)	Metal rolling - saws	Metal rolling - skelp mills
		Paper mill - converters	Oil industry filter press	Metal rolling - door openers	Metal rolling – straighteners	Metal rolling - slitter rolls
		Paper mill - reelers	Paper mill - beater/pulper	Metal rolling - reel drums	Metal rolling - transfer tables	Metal rolling - slabbing mills
		Paper mill - winders	Paper mill - dryers	Metal rolling -draw bench	Metal rolling - tube conveyor roll	Metal rolling - soaking pit drive
		Printing presses	Paper mill - jordans	Mills - cement/kin	Metal rolling- unscramblers	Metal rolling - thrust block drove
		Pumps - Gear/rotary/Vane	pumps - reciproc - 3 cyl+	Mills - pebble	Paper Mills - barker drum gear	Metal rolling - Traction drive
		Screens - Rotary stone/gravel	Timber - planer	Mills - tube	Paper Mills - chipper drive	
		Screw conveyor	Timber - slab conveyor	Mills - tumbling	Pumps - reciproc - 2cyl	
		Shredders	Timber - trimmer feed	Mills- dryers/coolers	Rubber plant - rubber mill	
		Textile machinery - dryers	Timbers – barrel	Mills- rolling	Rubber plant - mixers	
		Timber - sorting table	Windlasses	Paper mills – barker mechanical	Rubber plant -tyre builder m/c	
		Utility winches		Paper mills – log haul drives	Screens - vibrating	
				Paper mills - super calendars		
				Paper mills -calendars		
				Pullers - barge haul		
				Rubber plant - calendars		
				Rubber plant - sheeter		
				Rubber plant - tuber/straightener		
				Timber - Barker (drum)		

g. Define the operating time factor based on the duty cycle,  $K_2$

Operating hours / day	$K_2$	Operating hours / day	$K_2$	Operating hours /day	$K_2$
2	0.63	10	1.08	18	1.31
4	0.80	12	1.15	20	1.35
6	0.91	14	1.20	22	1.40
8	1	16	1.26	24	1.44

- h. Define the angle factor based on the coupling operation angle,  $K_3$

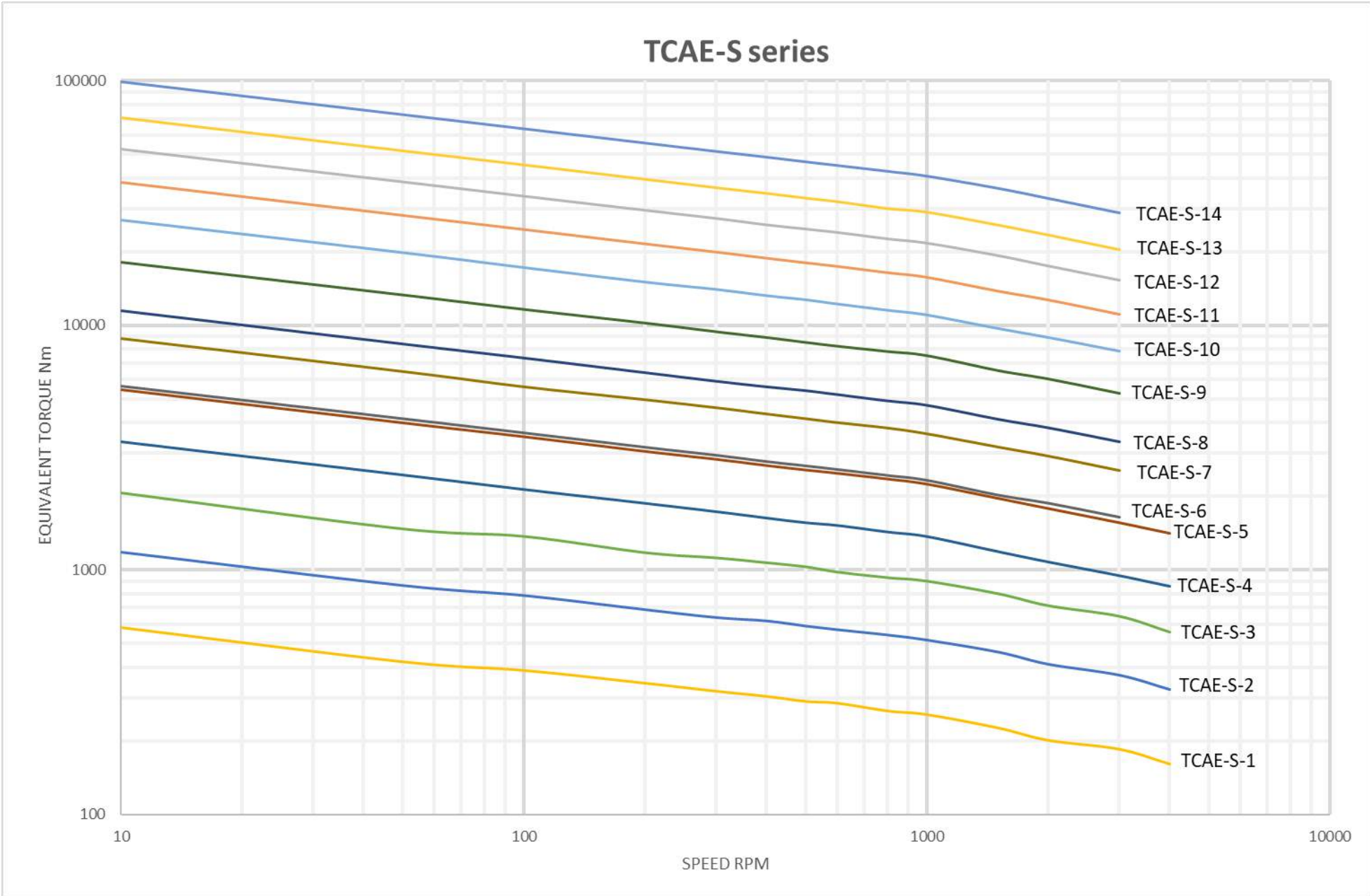
Operating angle degs	$K_3$
0	1
1	0.98
2	0.96
3	0.94
4	0.92
5	0.90

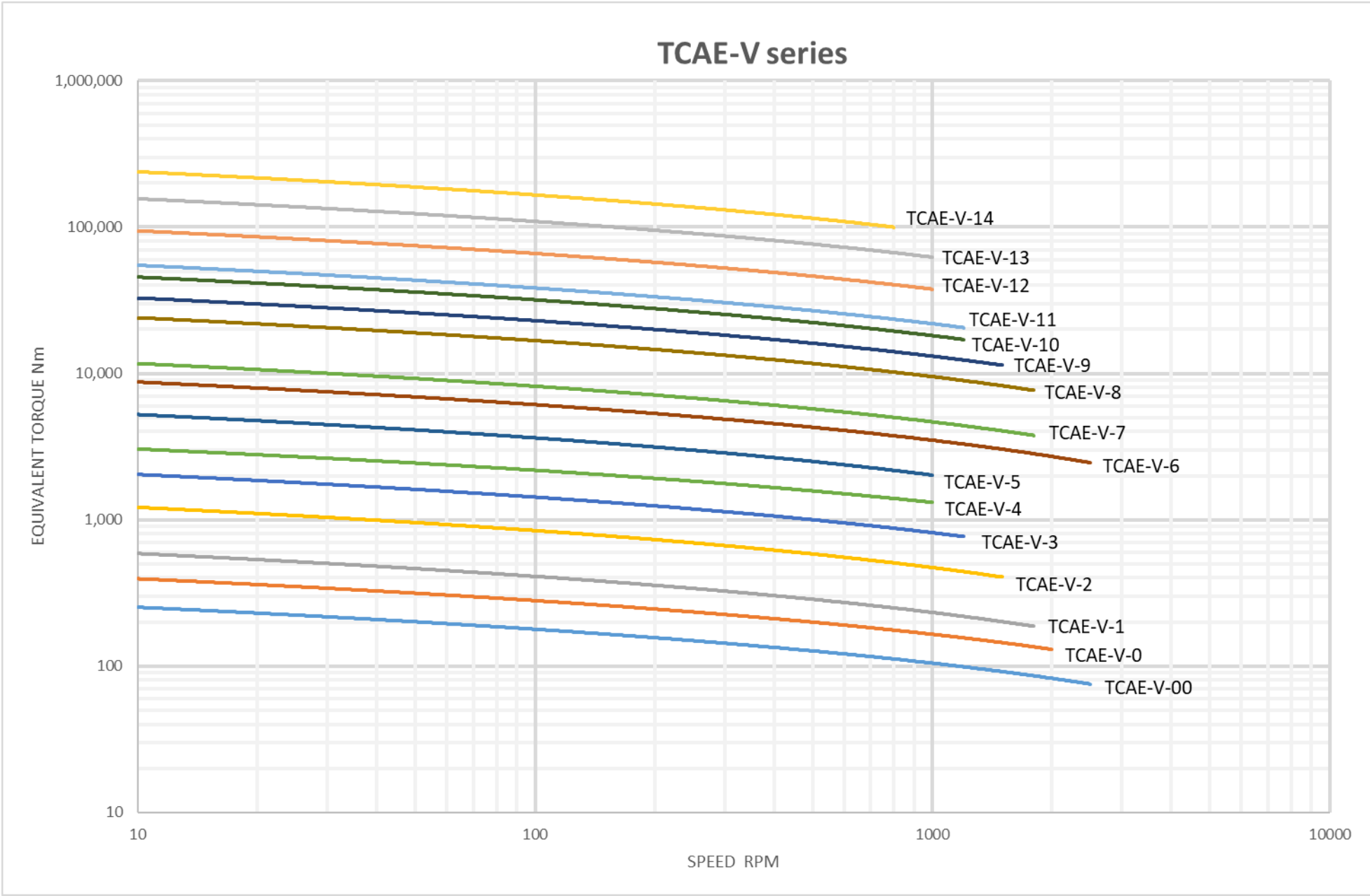
- i. Determine the Equivalent Torque,  $T_e$  based on the following formula:

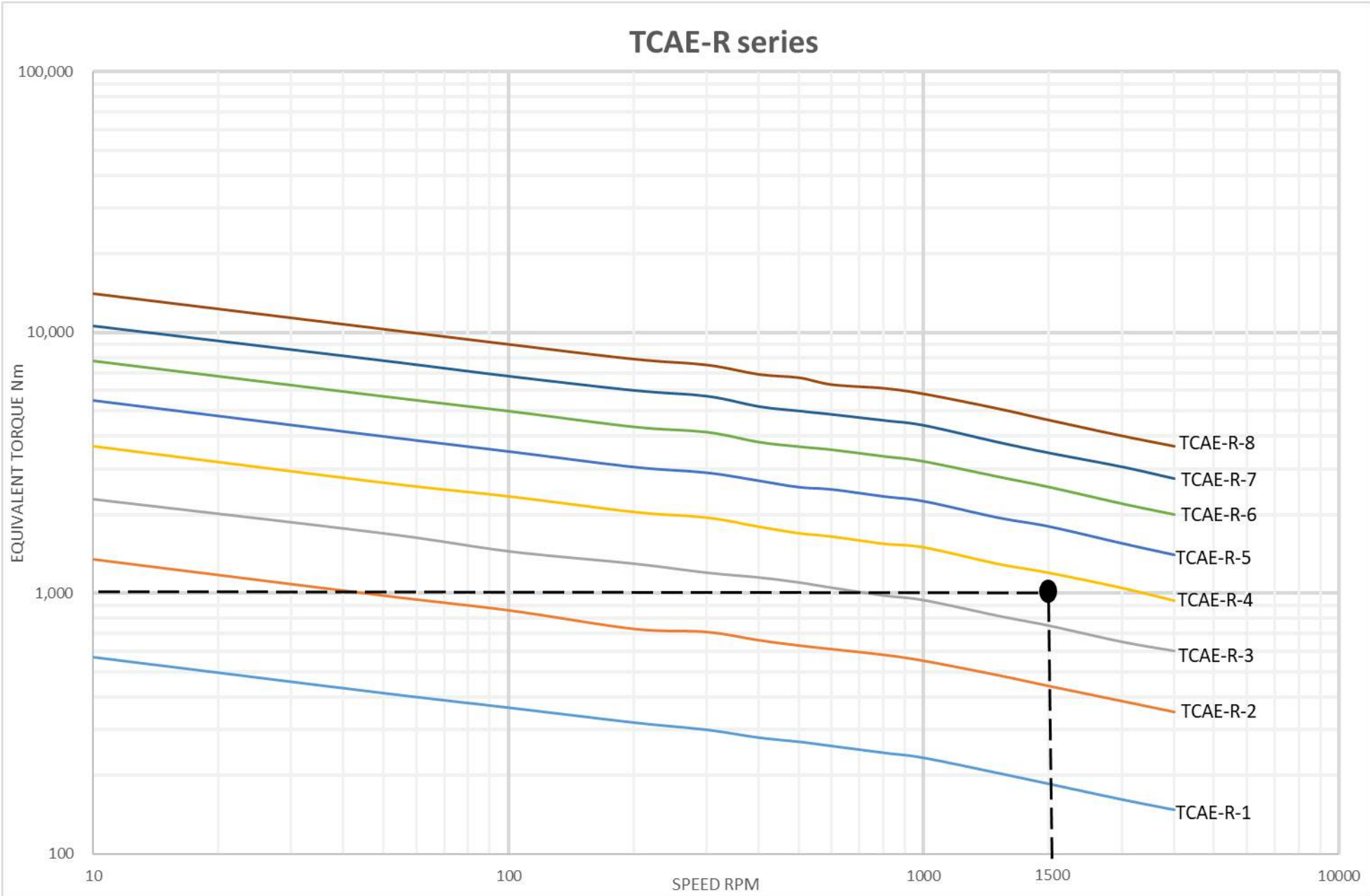
$$T_e = (K_1 \cdot K_2) \cdot T_n / K_3$$

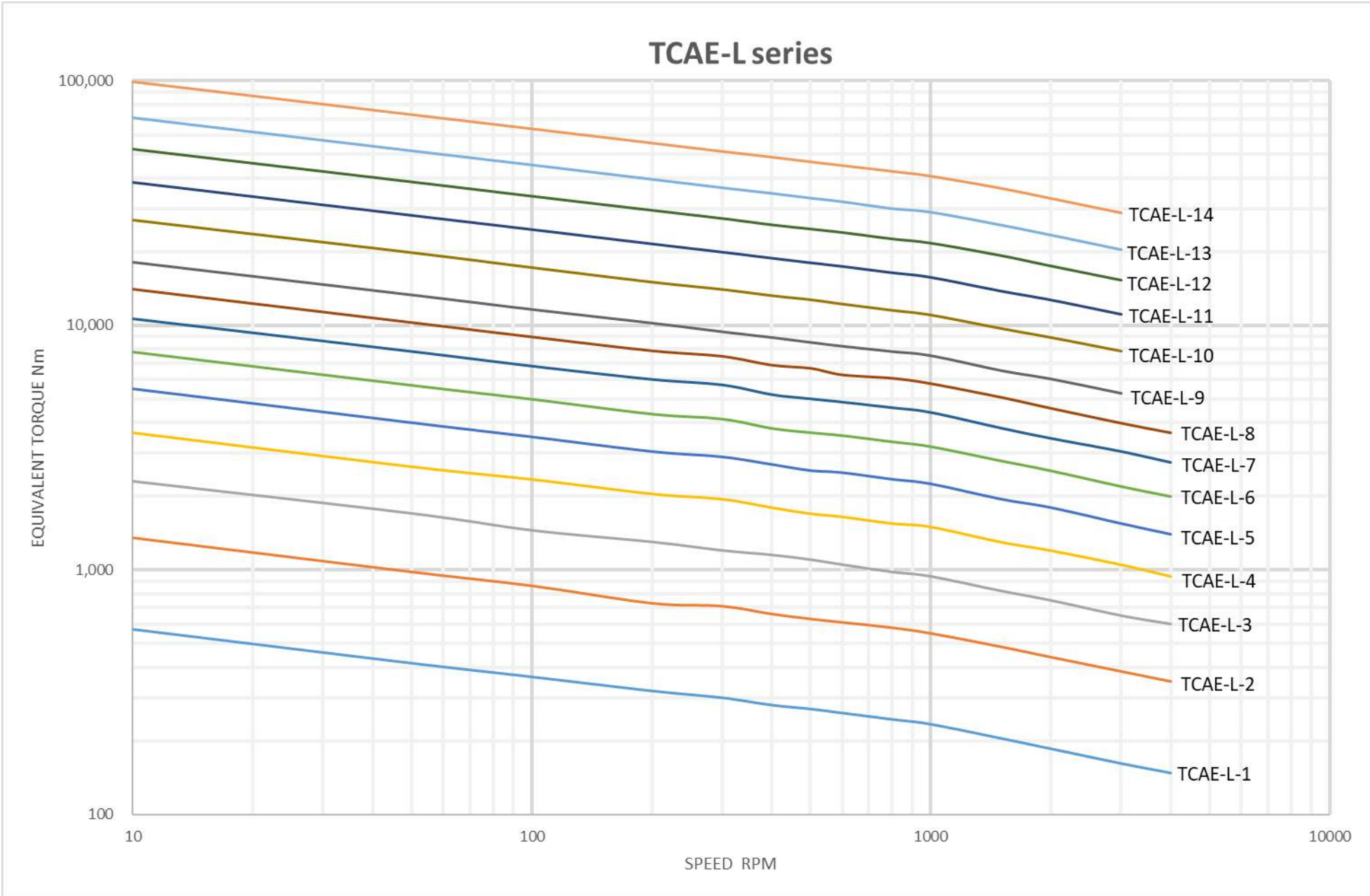
- j. Determine the series of coupling required for the application (R, L, V, S) usually based on the distance between shaft ends (DBSE). Using the appropriate chart below for the required coupling series, position the intersection of the Equivalent torque  $T_e$  and the coupling speed, **RPM**
- k. The selected coupling is found at the line above this intersection point.
- l. Example: The Equivalent Torque  $T_e$  has been calculated at 1,000Nm and runs at 1,500 RPM and due to the DBSE required an TCAE- R series is selected. Following the graph for R series a size **TCAE-R-4** coupling is chosen to fulfil the requirements (Page 8).
- m. These graphs for each TCAE series represent the coupling service life of 7,200 hours (equal to 8 hours per day, 25 days per month for 3 years)
- n. For applications requiring more intricate operations and different service lives it is recommended to use the **Spreadsheet Selector Program**.





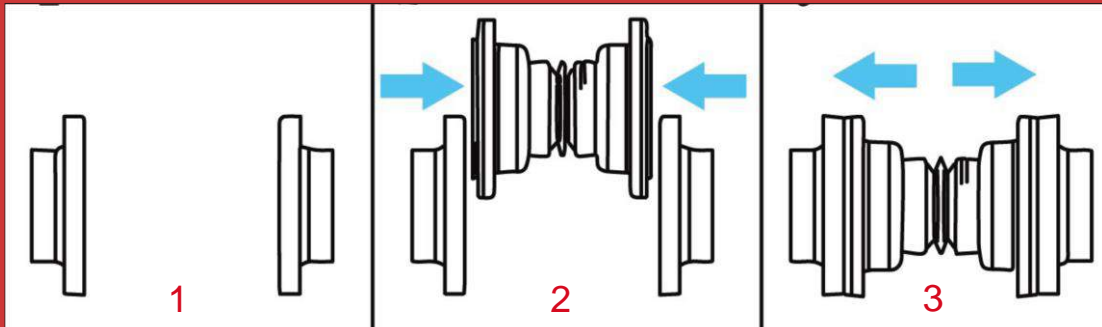






## Easy Installation

Quick Release Flanges allow for easy installation and replacement of the TCAE. Simply fix the flanges on the pump and motor shafts (1), compress the TCAE to fit in between (2) and then expand and attach the TCAE (3).



## Installation Procedure



1. If necessary, move the drive / driven device to the correct "end-to-end" shaft distance, in order to fit the TCAE in between.



2. Slide the Taper Lock Bush inside the Quick Release Flange. Do not completely tighten the screws from the Taper Lock Bush against the flange. Repeat the operation for the other flange and bush.



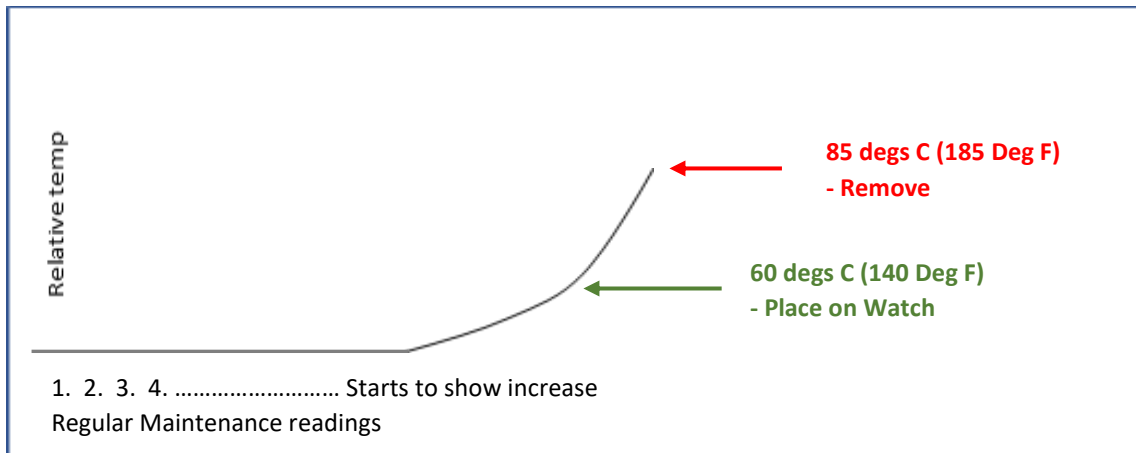
3. Slide both Quick Release Flanges onto both drive and driven device shafts with appropriate shaft keys. For best results, locate flange ends flush with the end of the shaft. Alternatively, at least 50% of the flange should be placed on the shaft. Tighten the Taper Lock Bush screws adequately.



4. If necessary, use a sling to insert the TCAE in a horizontal position. Compressing and expanding the TCAE as necessary, slide it between both flanges. Secure the TCAE to both flanges by tightening the bolts in a diametrically opposite sequence.

# Inspection Procedure

1. Visual inspection procedure:
  - a. Check for smooth operation with minimal vibration.
  - b. Inspect for build-up of contamination on all rotating parts.
  - c. Inspect for corrosion on all parts and replace as necessary.
  
2. Audio inspection procedure:
  - a. Assess for unusual vibration and corresponding noise levels.
  - b. Listen for unusual noises within the coupling.
  
3. It is recommended that a routine check be made of the coupling outer surface temperature using a non-contact thermometer (or similar) to detect any abnormal changes in temperature. The surface temperature is a function of conditions such as: ambient temperature, actual running power and speed, operating angle, duty cycle of the driven device and others. As such it is recommended that the coupling temperature be regularly recorded (usually as part of the plant condition monitoring routines). In normal operating environments (ambient up to 35 deg C) a threshold set point temperature of 60 deg C (140 deg F) should be the first warning signal to increase the frequency of subsequent temperature monitoring times. If the temperature is observed to increase significantly in subsequent inspection periods, or if it starts to exceed a temperature of 85 deg C (185 deg F) or more it should be **stopped** and **replaced (see below graph for reference)**.



# Accreditation

## Certification



**ISO 9001:2015**



**ATEX**



**ABS**

## Conformance

Our range of couplings comply with the following standards

- a. API 671
- b. Conformité Européene (European Conformity)
- c. ANSI/AGMA 9000-D11 – Grade 9

## Warranty

Thompson Couplings Limited (“**TCL**”) warrants, to the original purchaser only, that the delivered product which is the subject of this sale (a) will conform to drawings and specifications mutually established in writing as applicable to the contract, and (b) be free from defects in material or fabrication. The duration of this warranty is one year from date of delivery. If the buyer discovers within this period a failure of the product to conform to drawings or specifications, or a defect in material or fabrication, it must promptly notify **TCL** in writing. In no event shall such notification be received by **TCL** later than 13 months from the date of delivery. Within a reasonable time after such notification, **TCL** will, at its option, (a) correct any failure of the product to conform to drawings, specifications or any defect in material or workmanship, with either replacement or repair of the product, or (b) refund, in part or in whole, the purchase price. Such replacement and repair, excluding charges for labour, is at **TCL**'s expense. All warranty service will be performed at service centres designated by **TCL**. These remedies are the purchaser's exclusive remedies for breach of warranty.

**TCL** does not warrant (a) any product, components or parts not manufactured by **TCL**, (b) defects caused by failure to provide a suitable installation environment for the product, (c) damage caused by use of the product for purposes other than those for which it was designed, (d) damage caused by disasters such as fire, flood, wind, and lightning, (e) damage caused by unauthorized attachments or modification, (f) any other abuse or misuse by the purchaser, or (g) failure of the product due to the installation of an incorrect size or model. The purchaser shall at all times ensure that the size and model installed and used is in accordance with the methodology and calculations as set out in the **TCL** current Brochure. If at any time the purchaser is unsure of what size and model to use, they are to contact **TCL** for confirmation.

**THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

In no case shall **TCL** be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict tort, or any other legal theory, and in no case shall total liability of **TCL** exceed the purchase price of the part upon which such liability is based. Such damages include, but are not limited to, loss of profits, loss of savings or revenue, loss of use of the product or any associated equipment, cost of capital, cost of any substitute equipment, facilities or services, downtime, the claims of third parties including customers, and injury to property. Some states do not allow limits on warranties, or on remedies for breach in certain transactions. In such states, the limits in this paragraph and in paragraph (2) shall apply to the extent allowable under case law and statutes in such states.

Any action for breach of warranty or any other legal theory must be commenced within 15 months following delivery of the goods.

Unless modified in a writing signed by both parties, this agreement is understood to be the complete and exclusive agreement between the parties, superseding all prior agreements, oral or written, and all other communications between the parties relating to the subject matter of this agreement. No employee of **TCL** or any other party is authorized to make any warranty in addition to those made in this agreement.

This agreement allocates the risks of product failure between **TCL** and the purchaser. This allocation is recognised by both parties and is reflected in the price of the goods. The purchaser acknowledges that it has read this agreement, understands it, and is bound by its terms.

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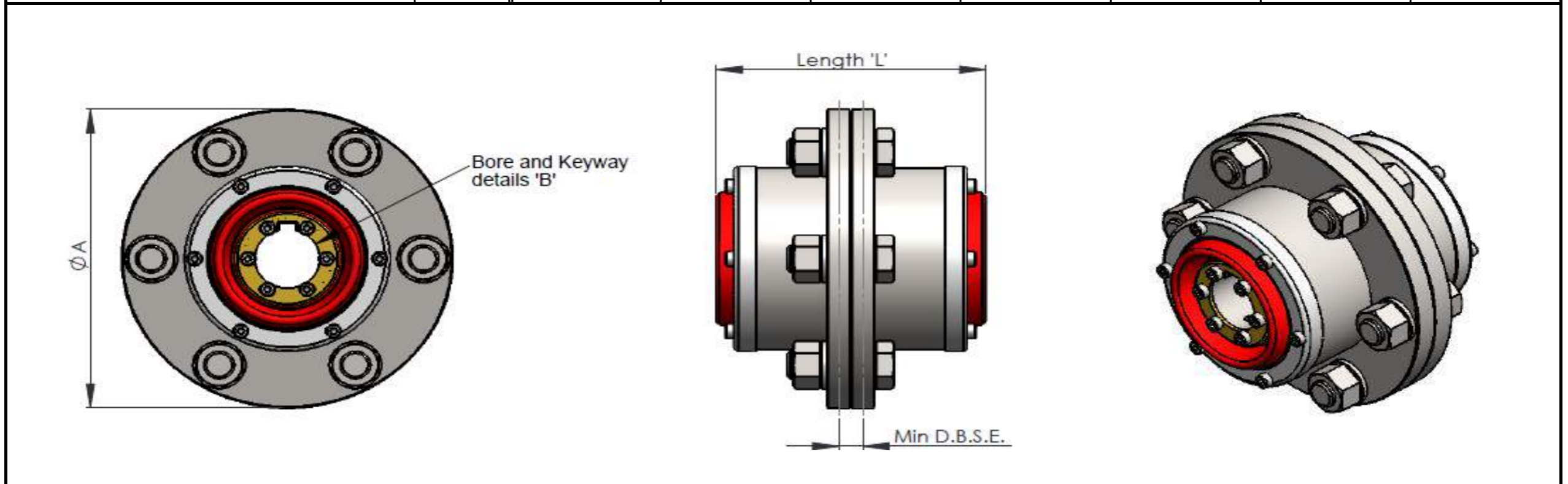
Although care has been taken to assure the accuracy of the data compiled in this catalogue, **TCL** does not assume any liability to any company or person for errors or omissions.



## Technical Information and Engineering Data

TCAE-S SERIES : SPECIFICATIONS

PARAMETERS	UNIT	TCAE-S-1	TCAE-S-2	TCAE-S-3	TCAE-S-4	TCAE-S-5	TCAE-S-6	TCAE-S-7	
CONTINUOUS TORQUE, $T_{100}^*$	N.m	408	826	1,443	2,243	3,686	3,823	5,898	
NOMINAL POWER CAP AT: (Based on machine service factor of 1.25, misaligned angle of 1 degree and service life of 7,200 hours)	1000 RPM	kW	14	28	48	73	120	124	192
	1500 RPM	kW	19	39	67	102	167	172	267
	MAX RPM	kW	3,000rpm 34kW	3,000rpm 68kW	3,000rpm 119kW	3,000rpm 178kW	3,000rpm 292kW	2,200rpm 235kW	2,200rpm 363kW
MAXIMUM MISALIGNMENT ANGLE	Degree °	10	10	10	10	10	10	10	
MAXIMUM PARALLEL SHAFT OFFSET	mm	6	7	7	7	7	9	9	
MAXIMUM SERVICE TEMPERATURE	°C	100	100	100	100	100	100	100	
SERVICE LIFE		As per customer application							
DIMENSION ØA	mm	152	179	215	236	270	244	272	
MINIMUM D.B.S.E.	mm	10	10	10	10	10	10	10	
DIMENSION L	mm	124	158	166	171	221	216	244	
MAXIMUM AXIAL EXPANSION	+/- mm	26	40	40	40	40	37	37	
BORE SIZES ØB	mm	30	40	50	55	60	65	65	
	inch	1.125	1.5	2.0	2.25	2.375	2.5	2.5	
	KEY	8x7	12x8	14x9	16x10	18x11	18x11	18x11	



PARAMETERS	UNIT	TCAE-S-8	TCAE-S-9	TCAE-S-10	TCAE-S-11	TCAE-S-12	TCAE-S-13	TCAE-S-14	
CONTINUOUS TORQUE, $T_{100}^*$	N.m	7,741	12,217	18,115	25,909	35,598	47,604	66,983	
NOMINAL POWER CAP AT: (Based on machine service factor of 1.25, misaligned angle of 1 degree and service life of 7,200 hours)	1000 RPM	kW	253	403	591	840	1,161	1,550	2,183
	1500 RPM	kW	350	559	819				
	MAX RPM	kW	2,200rpm 477kW	2,00rpm 706kW	1,500rpm 819kW	1,400rpm 1,101kW	1,200rpm 1,345kW	1,000rpm 1,550kW	800rpm 1,823kW
MAXIMUM MISALIGNMENT ANGLE	Degree °	10	10	10	10	10	10	8	
MAXIMUM PARALLEL SHAFT OFFSET	mm	9	9	9	9	9	11	11	
MAXIMUM SERVICE TEMPERATURE	°C	100	100	100	100	100	100	100	
SERVICE LIFE		As per customer application							
DIMENSION ØA	mm	292	336	376	420	462	504	580	
MINIMUM D.B.S.E.	mm	10	10	10	10	10	10	10	
DIMENSION L	mm	315	371	423	445	491	490	519	
MAXIMUM AXIAL EXPANSION	+/- mm	41	41	43	44	46	50	50	
BORE SIZES ØB	mm	85	100	125	130	150	170	200	
	inch	3.25	4.25	5.0	5.0	6.0	6.5	8.0	
	KEY	22x14	28x16	32x18	32x18	36x20	40x22	45x25	

\* Continuous Torque,  $T_{100}$  is defined as the unfactored torque value when run for 8 hours per day and 25 days per month at 100 rpm with a 0° coupling angle and machine service factor of 1 will give 3 years continuous service life.

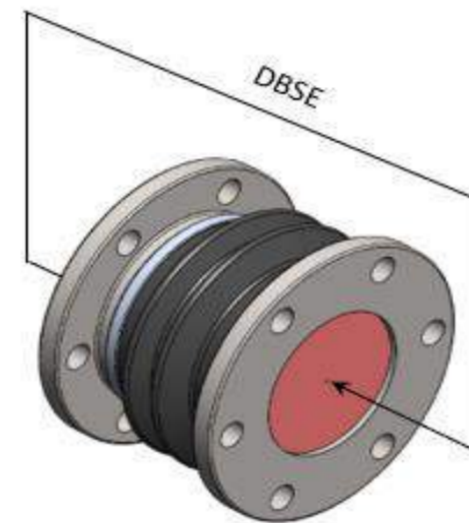
**TCAE-V SERIES : SPECIFICATIONS**

PARAMETERS	UNIT	TCAE-V-00	TCAE-V-0	TCAE-V-1	TCAE-V-2	TCAE-V-3	TCAE-V-4	TCAE-V-5
CONTINUOUS TORQUE, T <sub>100</sub> *	N.m	176	279	408	837	1,415	2,190	3,616
NOMINAL POWER CAP AT: (Based on machine service factor of 1.25, misaligned angle of 1 degree and service life of 7,200 hours)	1000 RPM	6	9	13	26	45	68	116
	1500 RPM	8	12	18	37	62	95	160
	MAX RPM	3,000rpm 14kW	3,000rpm 22kW	3,000rpm 32kW	3,000rpm 64kW	3,000rpm 108kW	3,000rpm 165kW	3,000rpm 279kW
MAXIMUM MISALIGNMENT ANGLE	Degree °	5	5	5	5	5	5	5
MAXIMUM PARALLEL SHAFT OFFSET	mm	4	5	5	7	8	9	11
MAXIMUM SERVICE TEMPERATURE	°C	100	100	100	100	100	100	100
SERVICE LIFE		As per customer application						
DIMENSION ØA	mm	118	134	152	177	215	236	270
DIMENSION B NOMINAL D.B.S.E. (RANGE)	mm	77 (74 to 80)	88 (84 to 92)	102 (96 to 108)	133 (127 to 139)	148 (140 to 156)	170 (162 to 178)	204 (196 to 212)
MAXIMUM AXIAL EXPANSION	+/- mm	3	4	6	6	8	8	8
BORE SIZES ØB	mm	14 to 50	14 to 50	16 to 65	16 to 65	25 to 75	35 to 100	35 to 100
	inch	0.55 to 2.00	0.55 to 2.00	0.625 to 2.5	0.625 to 2.5	1.00 to 3.00	1.50 to 4.00	1.50 to 4.00

\* Quick Release Flange sold separately



COUPLING ONLY



COUPLING WITH QUICK RELEASE FLANGES AND BUSHES

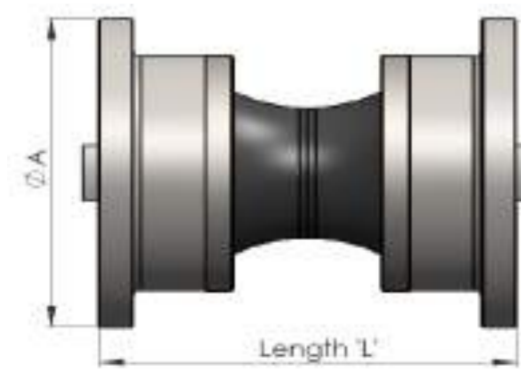


**TCAE-V SERIES : SPECIFICATIONS**

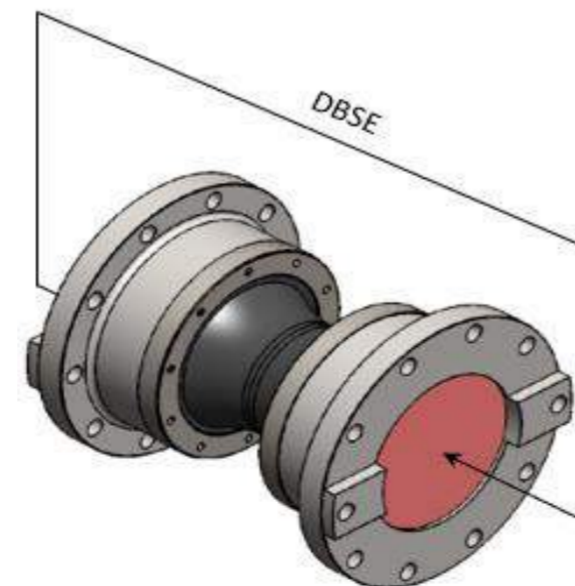
PARAMETERS	UNIT	TCAE-V-6	TCAE-V-7	TCAE-V-8	TCAE-V-9	TCAE-V-10	TCAE-V-11	TCAE-V-12	TCAE-V-13	TCAE-V-14
CONTINUOUS TORQUE, T <sub>100</sub> *	N.m	6,165	8,150	16,870	23,053	31,967	38,669	66,414	110,185	167,457
NOMINAL POWER CAP AT: (Based on machine service factor of 1.25, misaligned angle of 1 degree and service life of 7,200 hours)	1000 RPM	201	268	549	757	1,042	1,264	2,168	3,597	
	1500 RPM	278	372	762	1,050	1,445				
	MAX RPM	2,500 rpm 420 kW	2,500 rpm 562 kW	2,200 rpm 1,037 kW	2,000 rpm 1325 kW	1,500 rpm 1,445 kW	1,400 rpm 1,658 kW	1,200 rpm 2,512 kW	1,000 rpm 3,597	800 rpm 4,651
MAXIMUM MISALIGNMENT ANGLE	Degree °	5	5	5	5	5	5	5	5	5
MAXIMUM PARALLEL SHAFT OFFSET	mm	21	25	32	35	39	42	45	48	52
MAXIMUM SERVICE TEMPERATURE	°C	100	100	100	100	100	100	100	100	100
SERVICE LIFE		As per customer application								
DIMENSION ØA	mm	225	250	300	350	390	440	490	550	625
DIMENSION B NOMINAL D.B.S.E. (RANGE)	mm	272 (250 to 294)	270 (244 to 296)	268 (242 to 294)	336 (300 to 372)	336 (300 to 372)	362 (322 to 402)	528 (482 to 574)	528 (482 to 574)	578 (552 to 604)
MAXIMUM AXIAL EXPANSION	+/- mm	22	26	26	36	36	40	46	46	26
BORE SIZES ØB		Pilot-Bored Flanges								

- Taper Lock Bush sold separately

- Flanges sold separately



COUPLING ONLY



COUPLING WITH FLANGES

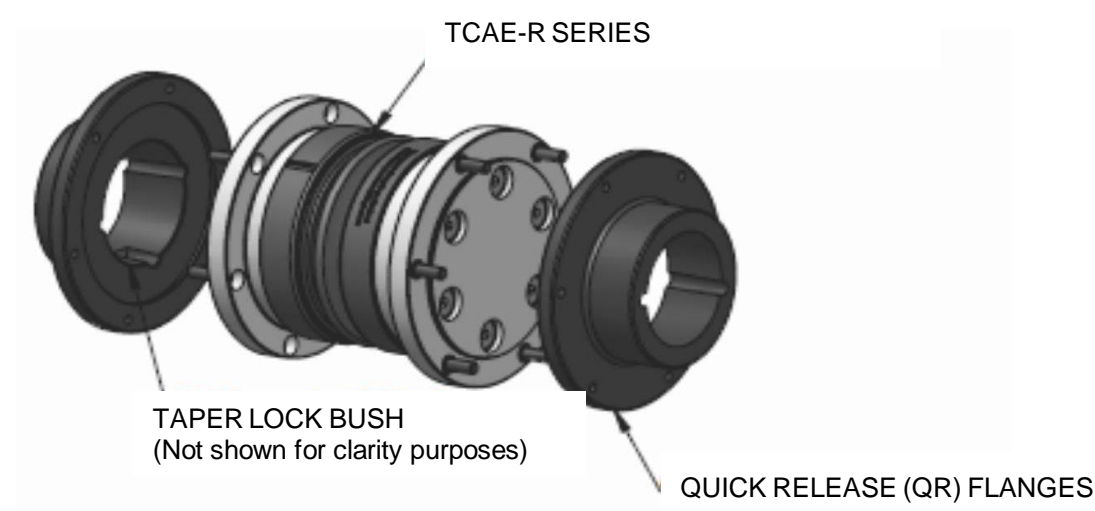
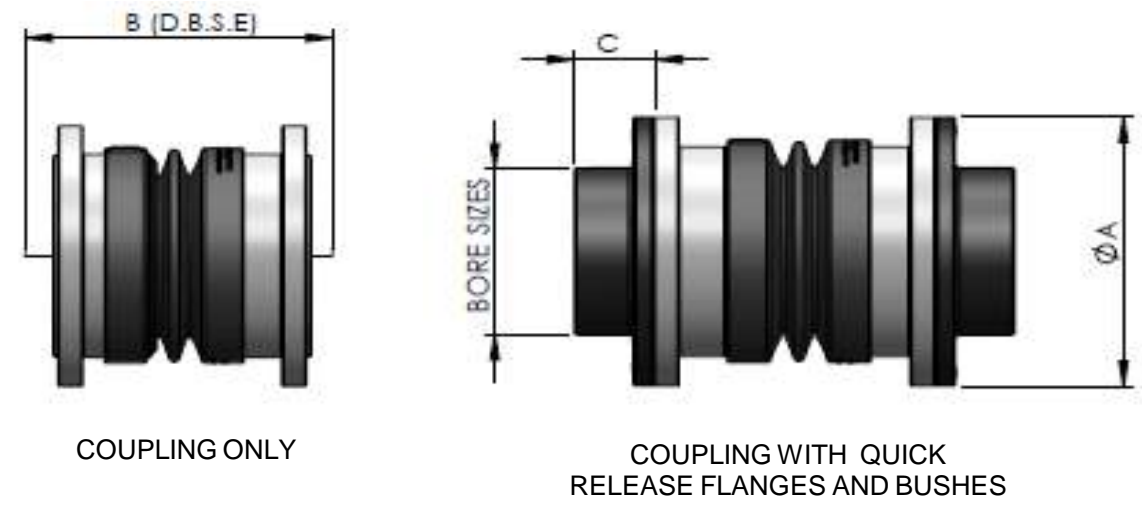


\* Continuous Torque, T<sub>100</sub> is defined as the unfactored torque value when run for 8 hours per day and 25 days per month at 100 rpm with a 0° coupling angle and machine service factor of 1 will give 3 years continuous service life.

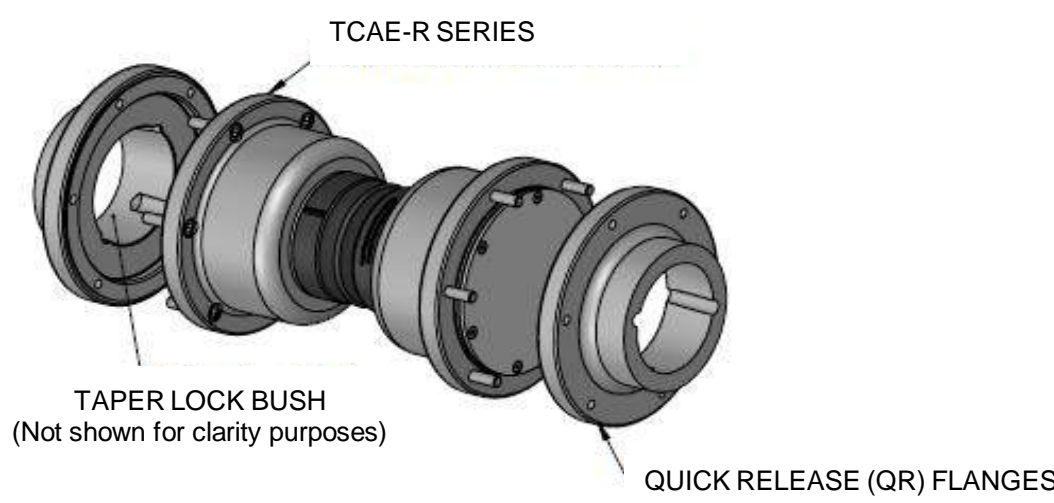
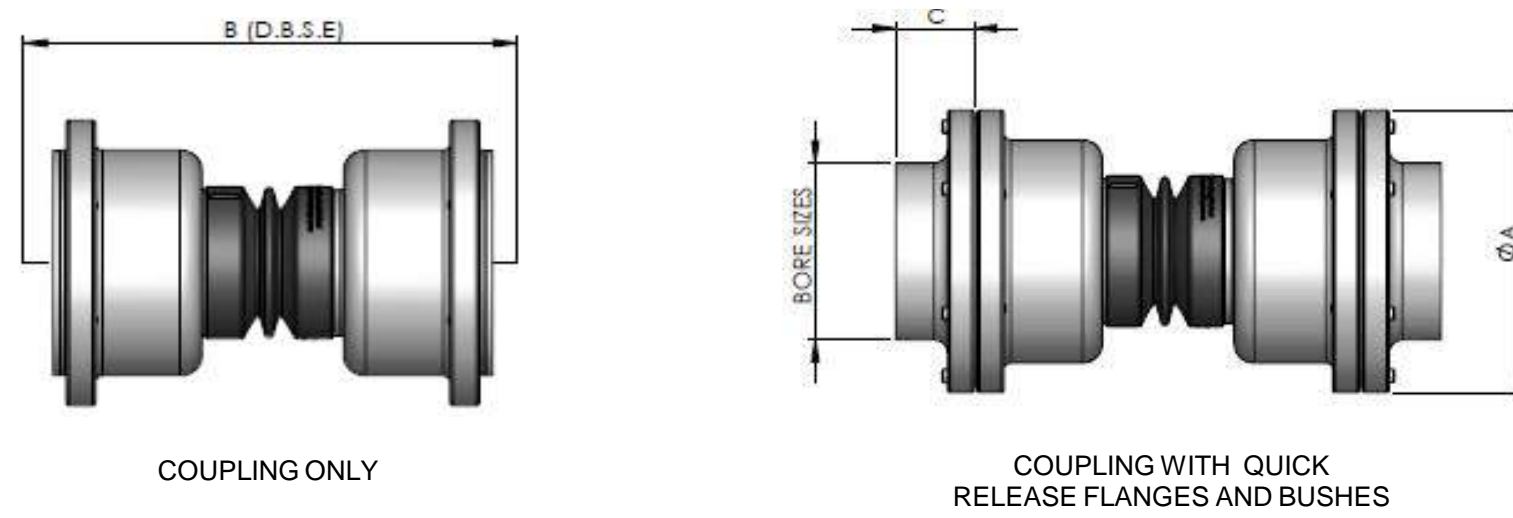
**TCAE-R SERIES : SPECIFICATIONS**

PARAMETERS	UNIT	TCAE-R-1	TCAE-R-2	PARAMETERS	UNIT	TCAE-R-3	TCAE-R-4	TCAE-R-5	PARAMETERS	UNIT	TCAE-R-6	TCAE-R-7	TCAE-R-8			
CONTINUOUS TORQUE, T <sub>100</sub> ***	N.m	384	906	CONTINUOUS TORQUE, T <sub>100</sub> ***	N.m	1,527	2,475	3,686	CONTINUOUS TORQUE, T <sub>100</sub> ***	N.m	5,266	7,162	9,479			
NOMINAL POWER CAP AT: (Based on machine service factor of 1.25, misaligned angle of 1 degree and service life of 7,200 hours)	1000 RPM	kW	12	30	NOMINAL POWER CAP AT: (Based on machine service factor of 1.25, misaligned angle of 1 degree and service life of 7,200 hours)	1000 RPM	kW	49	77	124	NOMINAL POWER CAP AT: (Based on machine service factor of 1.25, misaligned angle of 1 degree and service life of 7,200 hours)	1000 RPM	kW	166	240	316
	1500 RPM	kW	17	42		1500 RPM	kW	68	106	172		1500 RPM	kW	230	334	442
	MAX RPM	kW	3,000 rpm 30 kW	3,000 rpm 74 kW		MAX RPM	kW	3,000 rpm 118 kW	3,000 rpm 184 kW	3,000 rpm 302 kW		MAX RPM	kW	2,700 rpm 369kW	2,300 rpm 474 kW	2,000 rpm 560 kW
TOTAL MAXIMUM MISALIGNMENT ANGLE	Degree °	10	10	TOTAL MAXIMUM MISALIGNMENT ANGLE	Degree °	10	10	10	TOTAL MAXIMUM MISALIGNMENT ANGLE	Degree °	10	10	10			
MAXIMUM PARALLEL SHAFT OFFSET	mm	8	9	MAXIMUM PARALLEL SHAFT OFFSET	mm	18	17	18	MAXIMUM PARALLEL SHAFT OFFSET	mm	19	18	20			
MAXIMUM SERVICE TEMPERATURE	°C	120	120	MAXIMUM SERVICE TEMPERATURE	°C	120	120	120	MAXIMUM SERVICE TEMPERATURE	°C	120	120	120			
SERVICE LIFE		As per customer application		SERVICE LIFE		As per customer application			SERVICE LIFE		As per customer application					
DIMENSION ØA	mm	148	178	DIMENSION ØA	mm	215	253	278	DIMENSION ØA	mm	300	330	370			
DIMENSION B NOMINAL D.B.S.E. (RANGE)	mm	135 (130 to 140)	143 (136 to 150)	DIMENSION B NOMINAL D.B.S.E. (RANGE)	mm	276 (264 to 288)	295 (285 to 305)	315 (300 to 330)	DIMENSION B NOMINAL D.B.S.E. (RANGE)	mm	291 (277 to 305)	320 (310 to 330)	344 (330 to 358)			
DIMENSION C	mm	48	48	DIMENSION C	mm	61	74	74	DIMENSION C	mm	74	74	74			
BORE SIZES	mm	16 to 65	16 to 65	BORE SIZES	mm	25 to 75	35 to 100	35 to 100	BORE SIZES	mm	35 to 100	35 to 100	35 to 100			
	inch	0.625 to 2.5	0.625 to 2.5		inch	1.00 to 3.00	1.50 to 4.00	1.50 to 4.00		inch	1.50 to 4.00	1.50 to 4.00	1.50 to 4.00			

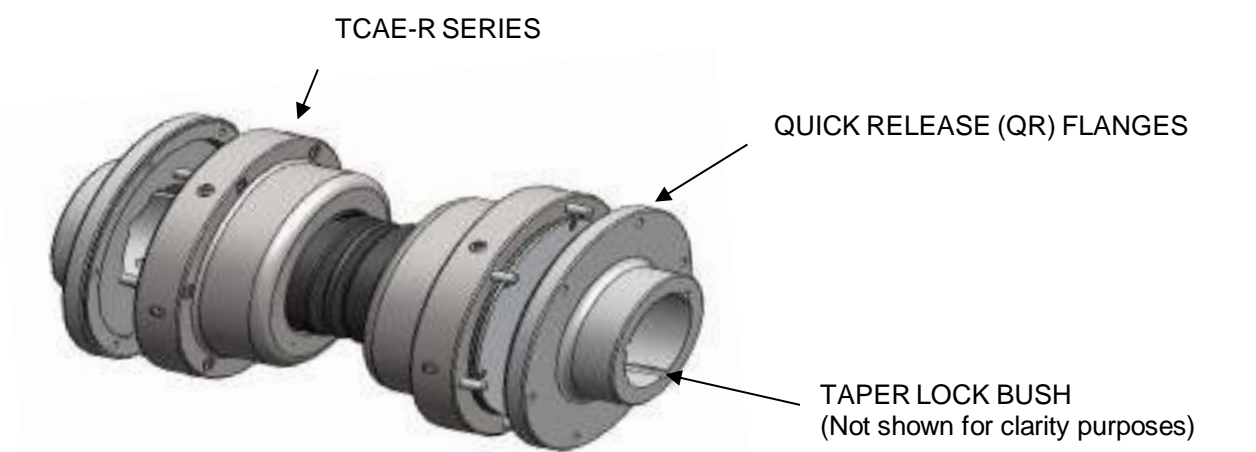
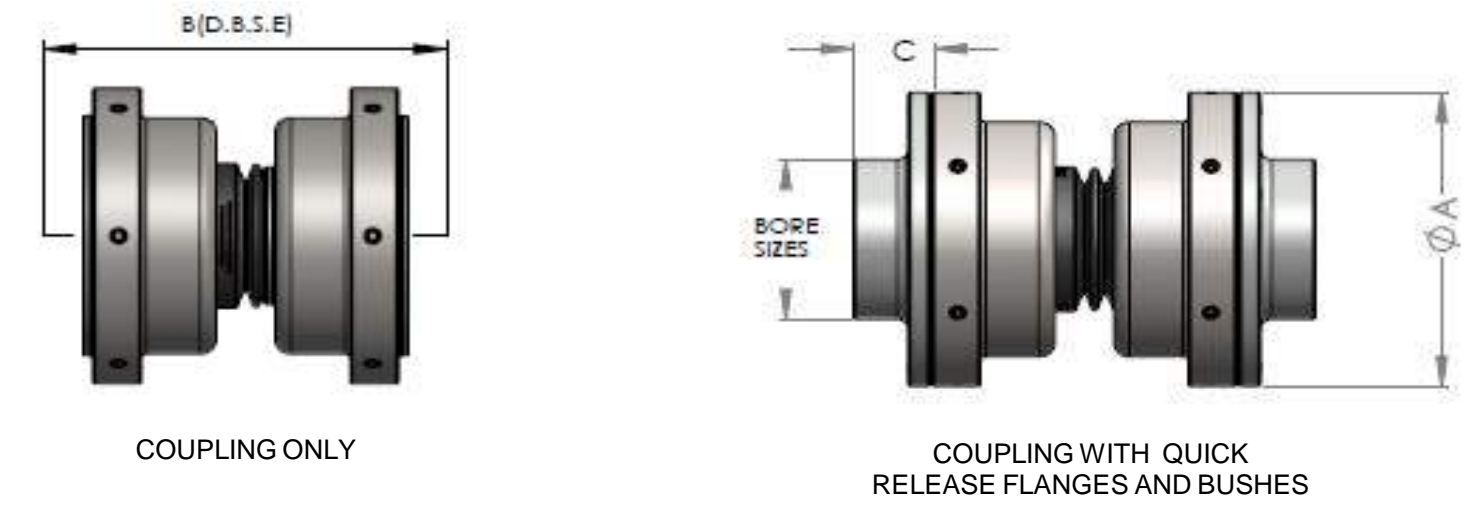
- Taper Lock Bush sold separately  
- Quick Release Flange sold separately



- Taper Lock Bush sold separately  
- Quick Release Flange sold separately



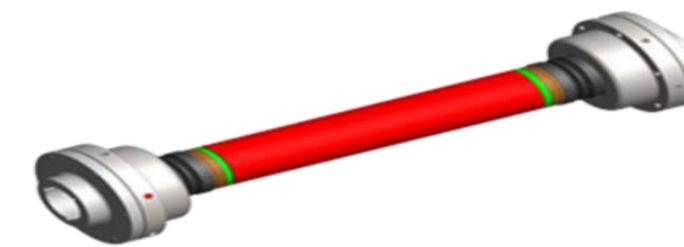
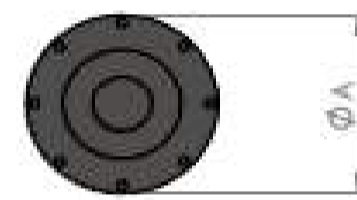
- Taper Lock Bush sold separately  
- Quick Release Flange sold separately



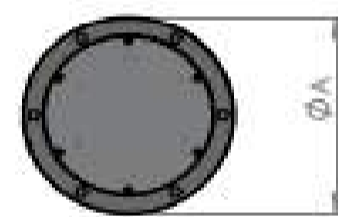
\* Continuous Torque, T<sub>100</sub> is defined as the unfactored torque value when run for 8 hours per day and 25 days per month at 100 rpm with a 0° coupling angle and machine service factor of 1 will give 3 years continuous service life

### TCAE-L SERIES : SPECIFICATIONS

PARAMETERS	UNIT	TCAE-L-1	TCAE-L-2	TCAE-L-3	TCAE-L-4	TCAE-L-5	TCAE-L-6	TCAE-L-7
CONTINUOUS TORQUE, T <sub>100</sub> ***	N.m	384	906	1,527	2,475	3,686	5,266	7,162
NOMINAL POWER CAP AT: (Based on machine service factor of 1.25, misaligned angle of 1 degree and service life of 7,200 hours)	1000 RPM	kW ***	12	30	49	77	124	240
	1500 RPM	kW ***	17	42	68	106	172	334
	MAX RPM	kW ***	3,000 rpm 30 kW	3,000 rpm 74 kW	3,000 rpm 118 kW	3,000 rpm 184 kW	3,000 rpm 302 kW	2,700 rpm 369kW
MAXIMUM MISALIGNMENT ANGLE	Degree °	10	10	10	10	10	10	10
MAXIMUM PARALLEL SHAFT OFFSET	mm	dependant on customer length						
MAXIMUM SERVICE TEMPERATURE	°C	100	100	100	100	100	100	100
SERVICE LIFE		As per customer application						
DIMENSION ØA	mm	148	178	215	253	278	300	330
DIMENSION L (MINIMUM)	mm	307	386	429	473	500	582	643
AXIAL EXPANSION	+/- mm	16	20	24	27	29	29	30



TCAE-L SERIES - FIXED SHAFT  
(DBSE to Customer Size)



TCAE-L SERIES - SLIDING SHAFT  
(DBSE to Customer Size)

PARAMETERS	UNIT	TCAE-L-8	TCAE-L-9	TCAE-L-10	TCAE-L-11	TCAE-L-12	TCAE-L-13	TCAE-L-14
CONTINUOUS TORQUE, T <sub>100</sub> ***	N.m	9,479	12,217	18,115	25,909	35,598	47,604	66,983
NOMINAL POWER CAP AT: (Based on machine service factor of 1.25, misaligned angle of 1 degree and service life of 7,200 hours)	1000 RPM	kW ***	316	403	591	840	1,161	1,823
	1500 RPM	kW ***	442	559				
	Max RPM	kW ***	2,000 rpm 560 kW	1,600 rpm 589 kW	1,300 rpm 730 kW	1,200 rpm 973 kW	1,100 rpm 1,254 kW	1,100 rpm 1,550 kW
MAXIMUM MISALIGNMENT ANGLE	Degree °	10	10	10	10	10	10	8
MAXIMUM PARALLEL SHAFT OFFSET	mm	dependant on customer length						
MAXIMUM SERVICE TEMPERATURE	°C	100	100	100	100	100	100	100
SERVICE LIFE		As per customer application						
DIMENSION ØA	mm	370	336	376	420	462	504	580
DIMENSION L (MINIMUM)	mm	760	535	570	650	715	770	840
AXIAL EXPANSION	+/- mm	35	40	40	44	46	50	50

\* Continuous Torque, T<sub>100</sub> is defined as the unfactored torque value when run for 8 hours per day and 25 days per month at 100 rpm with a 0° coupling angle and machine service factor of 1 will give 3 years continuous service life.

\*\* Maximum power cap. subject to shaft length.