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

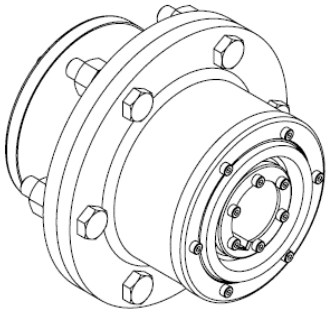
REDUCES VIBRATION

NO OR LOW MAINTENANCE

REDUCED OPERATING & POWER COSTS

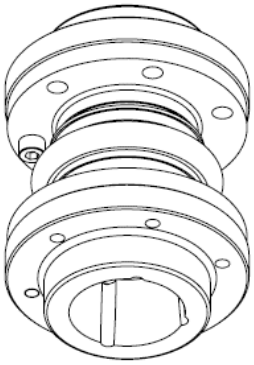
COMPONENTS SERIAL NUMBERED

Thompson Couplings



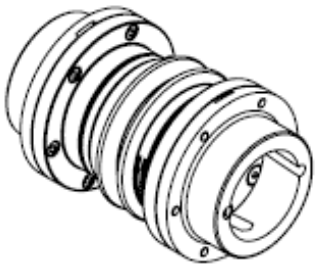
TCAE-S SERIES

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.



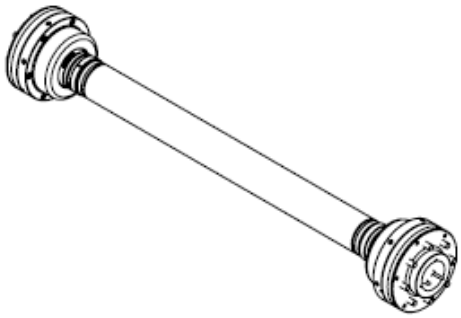
TCAE-V SERIES

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 215 BHP running at 1,500 rpm

TCAE MODEL	Power [BHP] at MSF 1.25		
	1000 rpm	1500 rpm	3000 rpm
TCAE-S-1	18	26	45
TCAE-S-2	37	52	91
TCAE-S-3	65	90	
TCAE-S-4	98	137	
TCAE-S-5	161	224	
TCAE-S-6	167	231	
TCAE-S-7	258	358	
TCAE-S-8	339	470	n/a **
TCAE-S-9	540	750	
TCAE-S-10	792		
TCAE-S-11	1,126		
TCAE-S-12	1,557	n/a **	
TCAE-S-13	2,079		
TCAE-S-14	2,927		

TCAE-V-00	8	11	14
TCAE-V-0	12	17	
TCAE-V-1	18	24	
TCAE-V-2	35	49	
TCAE-V-3	60	n/a **	
TCAE-V-4	92	n/a **	
TCAE-V-5	155	n/a **	
TCAE-V-6	269	373	
TCAE-V-7	360	499	n/a **
TCAE-V-8	737	1,022	
TCAE-V-9	1,015	1,408	
TCAE-V-10	1,398		
TCAE-V-11	1,694		
TCAE-V-12	2,908	n/a **	
TCAE-V-13	4,823		
TCAE-V-14	7,473		

TCAE-R-1	17	23	40
TCAE-R-2	40	56	99
TCAE-R-3	66	91	159
TCAE-R-4	104	143	247
TCAE-R-5	166	231	405
TCAE-R-6	223	309	
TCAE-R-7	322	448	n/a **
TCAE-R-8	424	592	

TCAE-L-1	17	23	40
TCAE-L-2	40	56	99
TCAE-L-3	66	91	159
TCAE-L-4	104	143	247
TCAE-L-5	166	231	405
TCAE-L-6	223	309	
TCAE-L-7	322	448	
TCAE-L-8	424	592	
TCAE-L-9	540	750	
TCAE-L-10	792		n/a **
TCAE-L-11	1,126		
TCAE-L-12	1,557	n/a **	
TCAE-L-13	2,079		
TCAE-L-14	2,927		

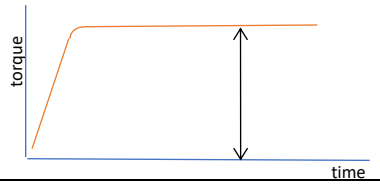
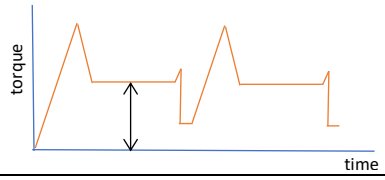
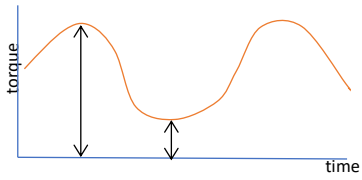
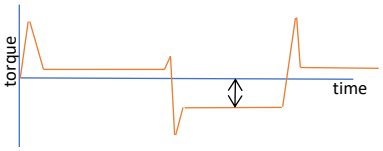
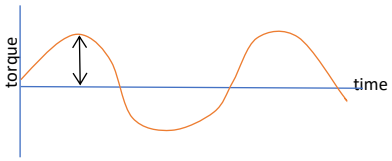
d. The above coupling size estimation is based on a machine service factor of 1.25 to give a running life of 7,200 hours (typical running time of 8 hours per day, 25 days per month for 3 years)
e. For other parameters refer to the following ***detailed selection method***, such as:
    i. diesel drives 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. Worse 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 (lb-in) = BHP x 63,000 / 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.

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

MACHINE USED	FACTOR K_1
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 molls
	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 molls
		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/kiln	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	Tumblers – 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:

$$T_e = (K_1.K_2) \, . \, T_n / K_3$$

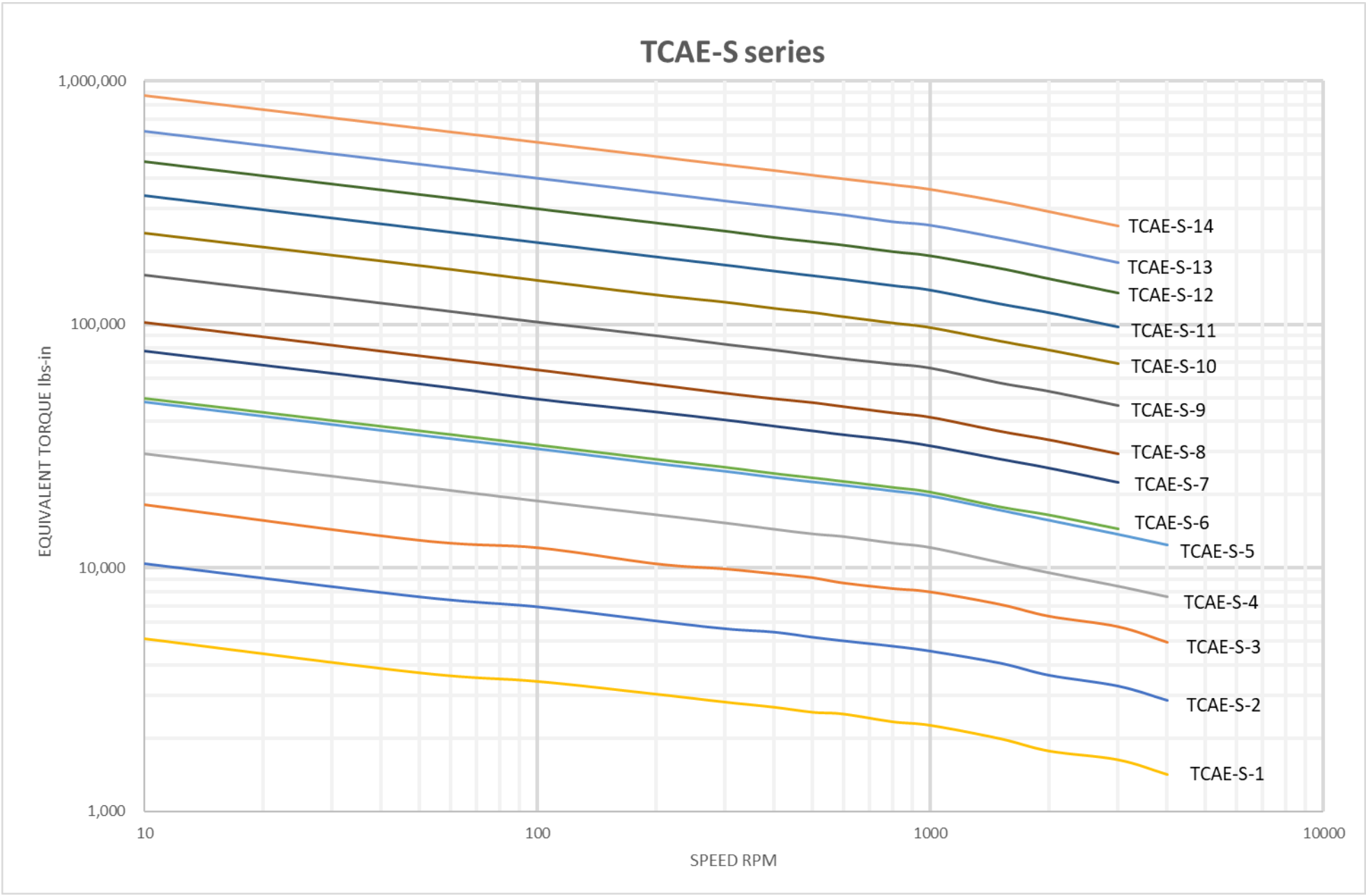
j. Determine the series of coupling required for the application (R, L, V, S) usually based on the distance between shaft ends (DBSE). Using the appropriate chart below for the required coupling series, position the intersection of the Equivalent torque **T_e** and the coupling speed, **RPM**

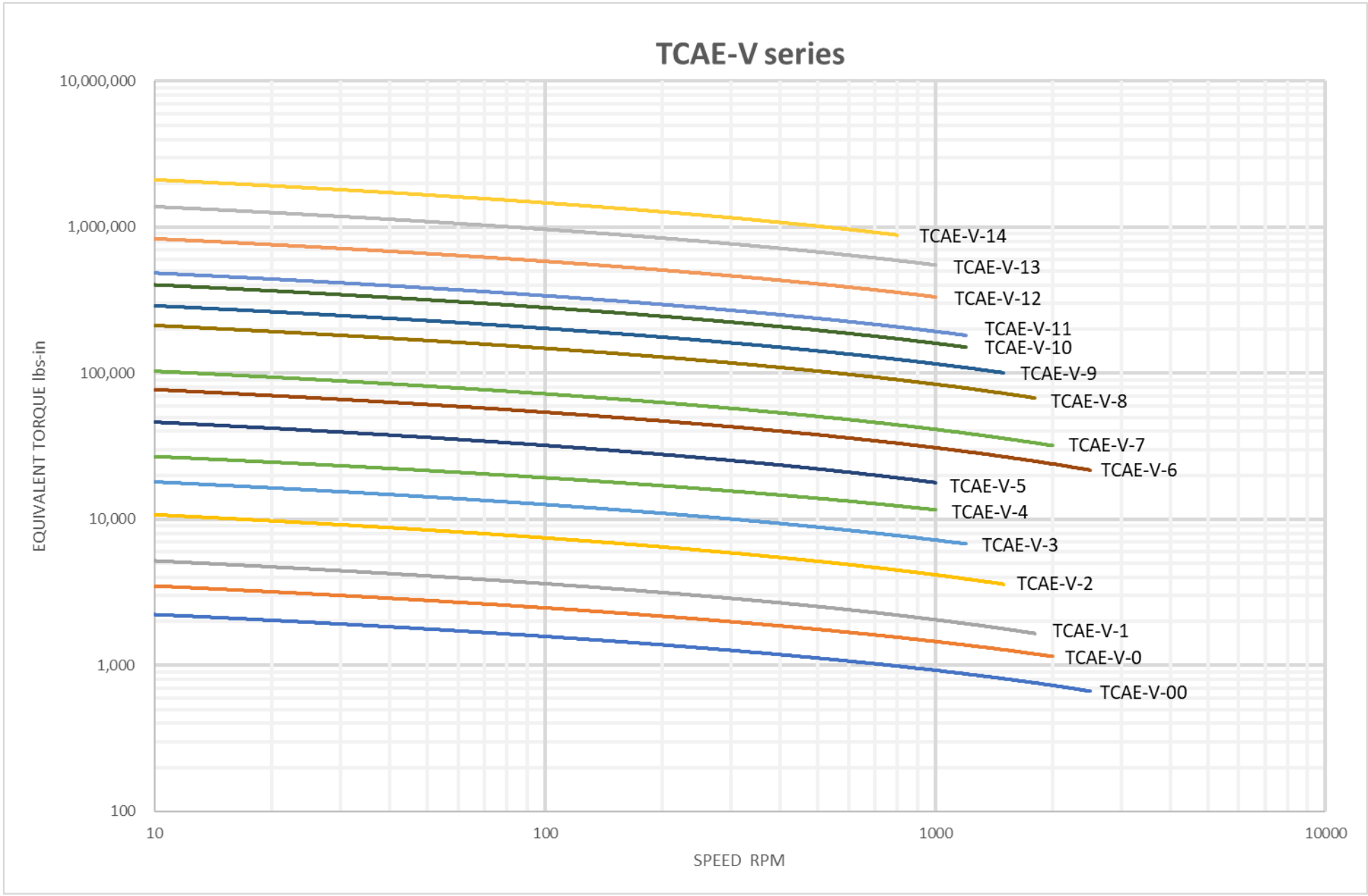
k. The selected coupling is found at the line above this intersection point.

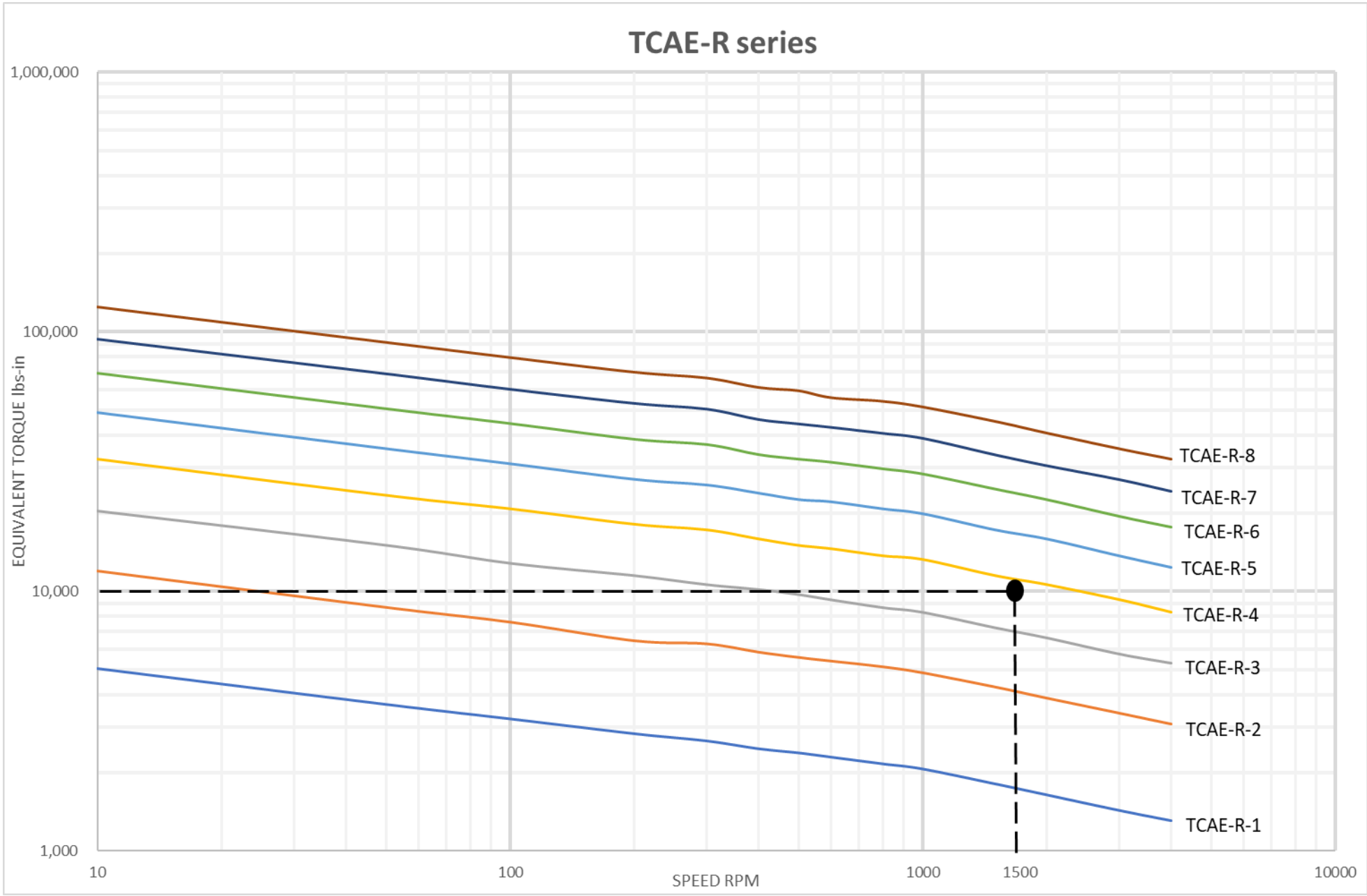
l. Example: The Equivalent Torque **T_e** has been calculated at 10,000 lbs-in and runs at 1,500 RPM and due to the DBSE required an TCAE- R series is selected. Following the graph for R series a size **TCAE-R-4** coupling is chosen to fulfil the requirements (Page 8).

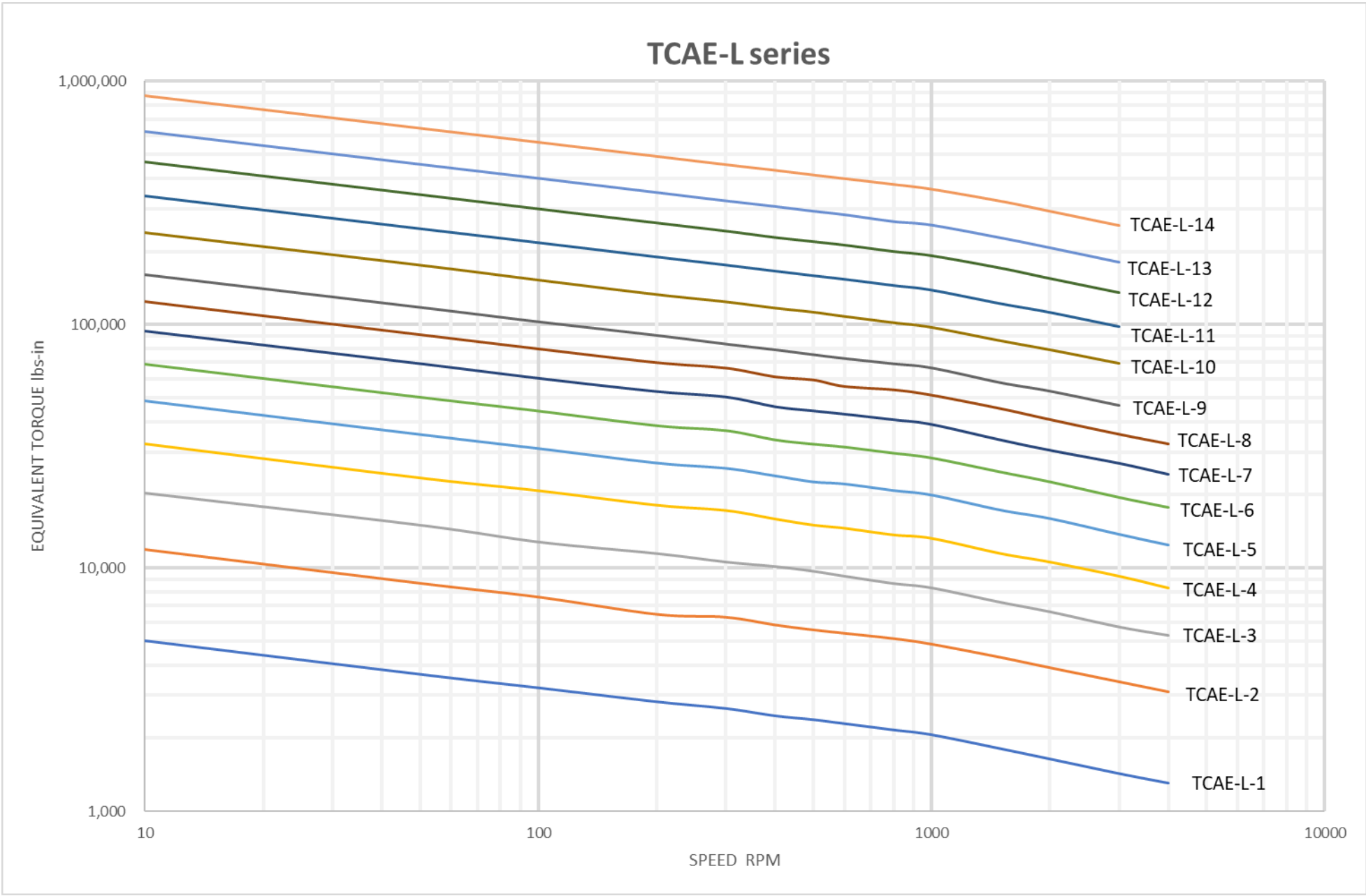
m. These graphs for each TCAE series represent the coupling service life of 7,200 hours (equal to 8 hours per day, 25 days per month for 3 years)

n. For applications requiring more intricate operations and different service lives it is recommended to use the **Spreadsheet Selector Program.**


TCAE-S series
1,000,000
100,000
10,000
1,000
EQUIVALENT TORQUE lbs-in
10
100
1000
10000
SPEED RPM
TCAE-S-14
TCAE-S-13
TCAE-S-12
TCAE-S-11
TCAE-S-10
TCAE-S-9
TCAE-S-8
TCAE-S-7
TCAE-S-6
TCAE-S-5
TCAE-S-4
TCAE-S-3
TCAE-S-2
TCAE-S-1

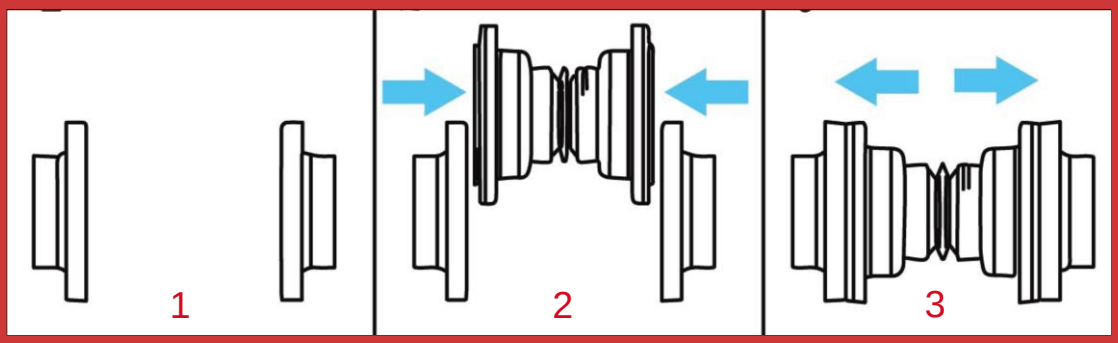

TCAE-V series
10,000,000
1,000,000
100,000
10,000
1,000
100
EQUIVALENT TORQUE lbs-in
10
100
1000
10000
SPEED RPM
TCAE-V-14
TCAE-V-13
TCAE-V-12
TCAE-V-11
TCAE-V-10
TCAE-V-9
TCAE-V-8
TCAE-V-7
TCAE-V-6
TCAE-V-5
TCAE-V-4
TCAE-V-3
TCAE-V-2
TCAE-V-1
TCAE-V-0
TCAE-V-00


TCAE-R series
1,000,000
100,000
10,000
1,000
EQUIVALENT TORQUE lbs-in
10
100
1000
1500
10000
SPEED RPM
TCAE-R-8
TCAE-R-7
TCAE-R-6
TCAE-R-5
TCAE-R-4
TCAE-R-3
TCAE-R-2
TCAE-R-1

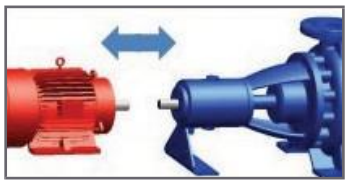

TCAE-L series
1,000,000
100,000
10,000
1,000
EQUIVALENT TORQUE lbs-in
10
100
1000
10000
SPEED RPM
TCAE-L-14
TCAE-L-13
TCAE-L-12
TCAE-L-11
TCAE-L-10
TCAE-L-9
TCAE-L-8
TCAE-L-7
TCAE-L-6
TCAE-L-5
TCAE-L-4
TCAE-L-3
TCAE-L-2
TCAE-L-1

Easy Installation

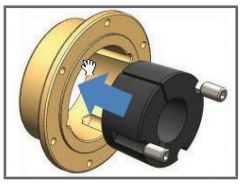
Quick Release Flanges allow for easy installation and replacement of the TCAE. Simply fix the flanges on the pump and motor shafts (1), compress the TCAE to fit in between (2) and then expand and attach the TCAE (3).



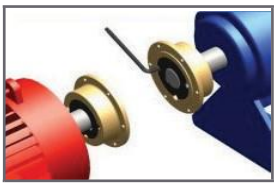
Installation Procedure



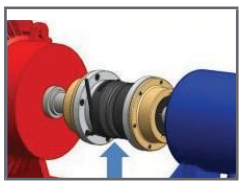
1. If necessary, move the drive / driven device to the correct “end-to-end” shaft distance, in order to fit the TCAE in between.



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.



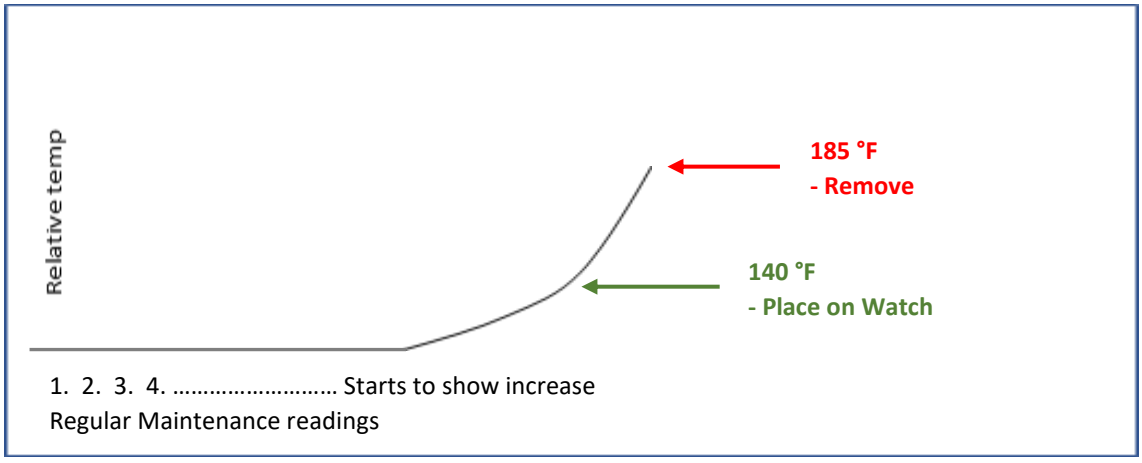
4. If necessary, use a sling to insert the TCAE in a horizontal position. Compressing and expanding the TCAE as necessary, slide it between both flanges. Secure the TCAE to both flanges by tightening the bolts in a diametrically opposite sequence.

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 95 °F C) a threshold set point temperature of 140 °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 185 °F) or more it should be **stopped** and **replaced (see below graph for reference)**.



Accreditation

Certification

CERT. NO. 1037

SOUTHPAC certifications

Certificate OF REGISTRATION

Thompson Couplings Limited

3/14 Rodwell Street, Archerfield, QLD 4108, Australia

Has been registered by Southpac Certifications as being compliant with the requirements of:

ISO 9001:2015

This registration covers the Quality Management System for the Provision of Manufacture, Sales and Distribution of Specialist Mechanical Couplings.

Certification Date: 23rd February 2017 | **Certificate Issue Date:** 02nd April 2020
Expiry Date: 02nd April 2023

Andrew Shone - CEO | Southpac Certifications

The validity of this certificate can be verified at www.jasanz.org/register

Quality Management System ISO 9001:2015 | Cert No. 1037 QMS

ISO 9001:2015

Certificate Number Baseefa18ATEX0067U

SGS Baseefa

Issued 18 September 2018
Page 1 of 3

1 **TYPE EXAMINATION CERTIFICATE**

2 **Component Intended for use on/in an Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**

3 Type Examination Certificate Number: **Baseefa18ATEX0067U**

4 Product: **TCAE Range of Couplings**

5 Manufacturer: **Thompson Couplings Limited**

6 Address: **3/12 Rodwell St, Archerfield, Brisbane, 4108, Australia**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 SGS Baseefa certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential Report No. **18(C)0064**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

BS EN ISO 80079-36: 2016 **BS EN ISO 80079-37: 2016**

except in respect of those requirements listed at item 18 of the Schedule.

10 The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

11 This TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured.

12 The marking of the product shall include the following:

II 2 GD **Ex h IIC Gb**
Ex h IIIC Db

SGS Baseefa Customer Reference No. **7822** Project File No. **18/0064**

SGS Baseefa Limited
Rockhead Business Park, Staden Lane, Buxton, Derbyshire SK17 9RZ

R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

M POWNEY
Certification Manager

ATEX

Electronically published by ABS Singapore
Reference T2169566, dated 18-OCT-2021.

ABS

CERTIFICATE NUMBER 21-2169566-PDA
EFFECTIVE DATE 18-Oct-2021
EXPIRATION DATE 17-Oct-2026
ABS TECHNICAL OFFICE Singapore Engineering Services

CERTIFICATE OF
Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

THOMPSON COUPLINGS LIMITED

located at

UNIT 3/14 RODWELL ST, ARCHERFILED, QLD, AUSTRALIA, 4108

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product **Couplings**

Model **TCAE S-Series & TCAE R-Series**

This Product Design Assessment (PDA) Certificate remains valid until 17-Oct-2026 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping

Vibin Chandrabose, Senior Engineer

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement.

ENG-ATT-00797 Revision 0 Page 1 of 1

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.

thompson
COUPLINGS

TCAE

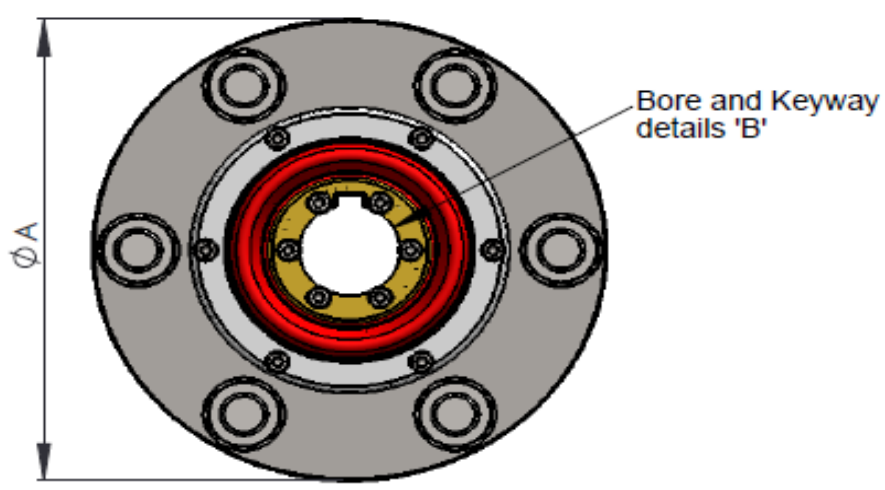
Technical Information and Engineering Data

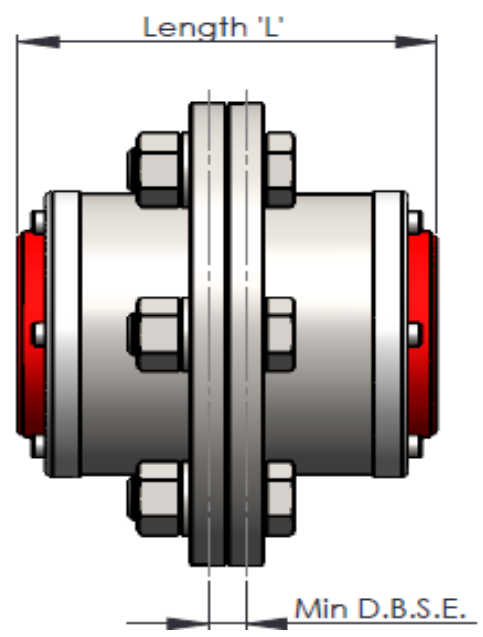
thompson COUPLINGS

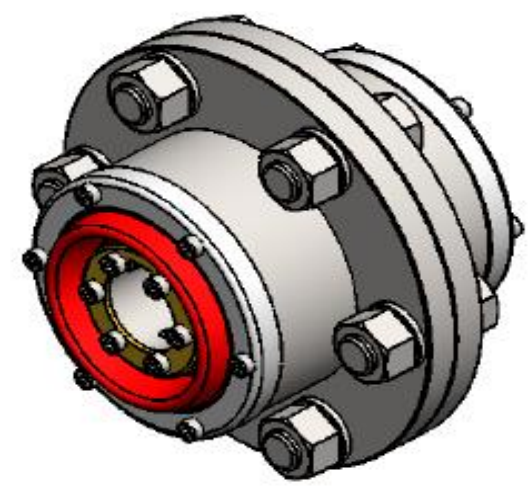
TCAE

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
MAXIMUM STATIC TORQUE		lbs-in	19,578	29,278	43,785	65,478	97,916	143,117	196,371
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	BHP	18	37	65	98	161	166	257
	1500 RPM	BHP	26	52	90	137	224	231	358
	3000 RPM	BHP	45	91	n/a *	n/a *	n/a *	n/a *	n/a *
MAXIMUM MISALIGNMENT ANGLE		Degree °	10	10	10	10	10	10	10
MAXIMUM PARALLEL SHAFT OFFSET		in	1	1	1	1	2	1	2
MAXIMUM SERVICE TEMPERATURE		F	210	210	210	210	210	210	210
SERVICE LIFE			As per customer application						
DIMENSION ØA		in	6	7	8	9	11	10	11
MINIMUM D.B.S.E.		in	0.4	0.4	0.4	0.4	0.4	0.4	0.4
DIMENSION L		in	5	6	7	7	9	9	10
MAXIMUM AXIAL EXPANSION		+/- in	1.0	1.6	1.6	1.6	1.6	1.5	1.5
BORE SIZES ØB		in	1.125	1.5	2.0	2.25	2.375	2.5	2.5
		KEY	5/16” x 1/4”	3/8” x 1/4”	5/8” x 7/16”	5/8” x 1/2”	5/8” x 1/2”	3/4” x 1/2”	3/4” x 1/2”







PARAMETERS		UNIT	TCAE-S-8	TCAE-S-9	TCAE-S-10	TCAE-S-11	TCAE-S-12	TCAE-S-13	TCAE-S-14
MAXIMUM STATIC TORQUE		lbs-in	339,231	538,727	804,143	1,144,932	1,570,556	2,090,458	3,911,853
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	BHP	339	540	793	1,126	1,557	2,079	2,927**
	1500 RPM	BHP	469	750	n/a *	n/a *	n/a *	n/a *	n/a *
MAXIMUM MISALIGNMENT ANGLE		Degree °	10	10	10	10	10	10	8
MAXIMUM PARALLEL SHAFT OFFSET		in	2	2.6	3	3	3	3	3
MAXIMUM SERVICE TEMPERATURE		F	210	210	210	210	210	210	210
SERVICE LIFE			As per customer application						
DIMENSION ØA		in	11	13	15	17	18	20	23
MINIMUM D.B.S.E.		in	0.4	0.4	0.4	0.4	0.4	0.4	0.4
DIMENSION L		in	12	15	17	18	19	19	20
MAXIMUM AXIAL EXPANSION		+/- in	1.6	1.6	1.7	1.7	1.8	2.0	2.0
BORE SIZES ØB		in	3.25	4.25	5.0	5.0	6.0	6.5	8.0
		KEY	7/8” x 5/8”	1.1/4” x 7/8”	1.1/2” x 1”	1.1/2” x 1”	1.1/2” x 1”	1.3/4” x 1.1/4”	2.1/4” x 1.1/2”

* Power Cap. at maximum rated speed available in detailed technical specifications.

** Power Cap. at maximum rated speed of 800 rpm

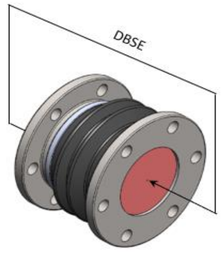
TCAE-V SERIES : SPECIFICATIONS

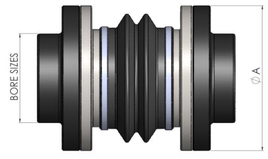
PARAMETERS		UNIT	TCAE-V-00	TCAE-V-0	TCAE-V-1	TCAE-V-2	TCAE-V-3	TCAE-V-4	TCAE-V-5
MAXIMUM STATIC TORQUE		lbs-in	13,444	22,118	32,960	51,175	100,615	138,780	211,639
NOMINAL POWER CAP AT: (Based on machine service factor of 1.25, misaligned angle of 1 degree and service life of 7,200 hours)	1000 RPM	BHP	8	12	18	35	60	92	155
	1500 RPM	BHP	11	17	24	49	n/a *	n/a *	n/a *
	3000 RPM	BHP	19	n/a *	n/a *	n/a *	n/a *	n/a *	n/a *
MAXIMUM MISALIGNMENT ANGLE		Degree °	5	5	5	5	5	5	5
MAXIMUM SERVICE TEMPERATURE		F	210	210	210	210	210	210	210
SERVICE LIFE			As per customer application						
DIMENSION ØA		in	4.6	5.3	6.0	7.0	8.5	9.3	10.6
DIMENSION B NOMINAL D.B.S.E.		in	3.0	3.5	4.0	4.8	5.8	6.7	8.0
MAXIMUM AXIAL EXPANSION		+/- in	0.1	0.2	0.2	0.2	0.3	0.3	0.3
BORE SIZES ØB		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

* Taper Lock Bush sold separately

* Quick Release Flange sold separately

COUPLING ONLY





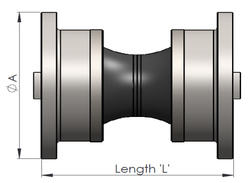
COUPLING WITH QUICK RELEASE FLANGES AND BUSHES

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
MAXIMUM STATIC TORQUE		lbs-in	354,030	470,860	978,892	1,344,428	1,858,657	3,097,761	3,872,201	6,381,388	8,983,507
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	BHP	269	360	737	1,015	1,398	1,694	2,908	4,823	6,237 **
	1500 RPM	BHP	373	499	1022	1,408	n/a *	n/a *	n/a *	n/a *	n/a *
MAXIMUM MISALIGNMENT ANGLE		Degree °	5	5	5	5	5	5	5	5	5
MAXIMUM SERVICE TEMPERATURE		F	210	210	210	210	210	210	210	210	210
SERVICE LIFE			As per customer application								
DIMENSION ØA		in	8.9	9.8	11.8	13.8	15.4	17.3	19.3	21.7	24.6
DIMENSION B NOMINAL D.B.S.E.		in	10.7	12.2	15.3	16.4	18.3	19.8	20.8	22.0	23.9
MAXIMUM AXIAL EXPANSION		+/- in	0.9	1.2	1.0	1.5	1.7	1.9	2.0	2.0	2.2
BORE SIZES ØB			Pilot-Bored Flanges								

- Taper Lock Bush sold separately

- Flanges sold separately



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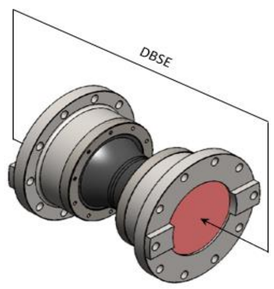
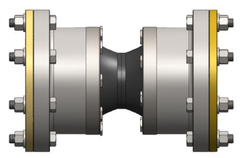
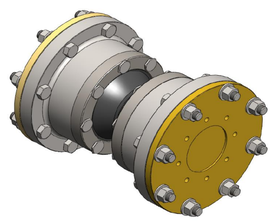




COUPLING WITH PILOT-BORED FLAGES



* Power Cap. at maximum rated speed available in detailed technical specifications.

** Power Cap. at maximum rated speed of 800 rpm

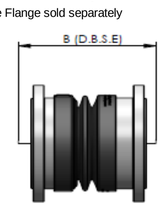
thompson COUPLINGS

TCAE

TCAE-R SERIES : SPECIFICATIONS

PARAMETERS		UNIT	TCAE-R-1	TCAE-R-2
MAXIMUM STATIC TORQUE		lbs-in	22,127	51,157
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	BHP	17	40
	1500 RPM	BHP	23	56
	3000 RPM	BHP	40	99
TOTAL MAXIMUM MISALIGNMENT ANGLE		Degree °	10	10
MAXIMUM PARALLEL SHAFT OFFSET		in	0.3	0.4
MAXIMUM SERVICE TEMPERATURE		F	250	250
SERVICE LIFE			As per customer application	
DIMENSION ØA		in	5.8	7.0
DIMENSION B NOMINAL D.B.S.E.		in	5.31	6.50
DIMENSION C		in	1.9	1.9
BORE SIZES		inch	0.625 to 2.5	0.625 to 2.5

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



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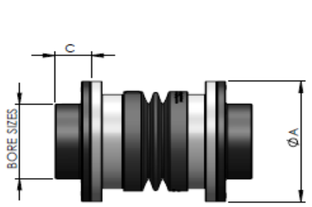
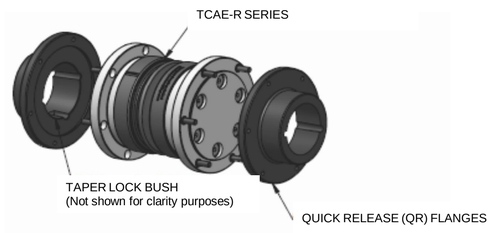
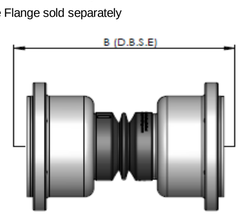


COUPLING WITH QUICK RELEASE FLANGES AND BUSHES



PARAMETERS		UNIT	TCAE-R-3	TCAE-R-4	TCAE-R-5
MAXIMUM STATIC TORQUE		lbs-in	102,350	138,780	211,639
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	BHP	66	104	166
	1500 RPM	BHP	91	143	231
	3000 RPM	BHP	159	247	405
TOTAL MAXIMUM MISALIGNMENT ANGLE		Degree °	10	10	10
MAXIMUM PARALLEL SHAFT OFFSET		in	0.7	0.7	0.7
MAXIMUM SERVICE TEMPERATURE		F	250	250	250
SERVICE LIFE			As per customer application		
DIMENSION ØA		in	8.5	10.0	10.9
DIMENSION B NOMINAL D.B.S.E.		in	11.61	11.61	12.40
DIMENSION C		in	2.4	2.9	2.9
BORE SIZES		inch	1.00 to 3.00	1.50 to 4.00	1.50 to 4.00

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



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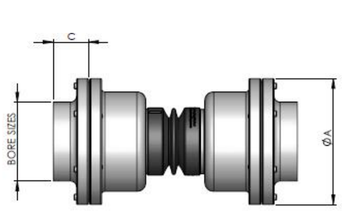
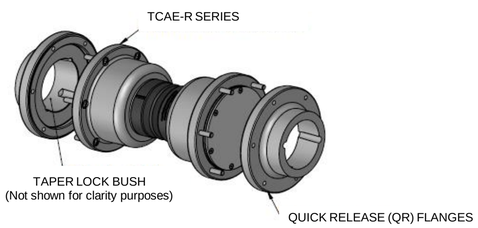
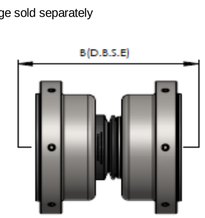


COUPLING WITH QUICK RELEASE FLANGES AND BUSHES



PARAMETERS		UNIT	TCAE-R-6	TCAE-R-7	TCAE-R-8
MAXIMUM STATIC TORQUE		lbs-in	262,814	373,838	558,588
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	BHP	223	322	424
	1500 RPM	BHP	309	448	592
	3000 RPM	BHP	n/a *	n/a *	n/a *
TOTAL MAXIMUM MISALIGNMENT ANGLE		Degree °	10	10	10
MAXIMUM PARALLEL SHAFT OFFSET		in	0.7	0.7	0.8
MAXIMUM SERVICE TEMPERATURE		F	250	250	250
SERVICE LIFE			As per customer application		
DIMENSION ØA		in	11.8	13.0	14.6
DIMENSION B NOMINAL D.B.S.E.		in	11.46	13.54	13.54
DIMENSION C		in	2.9	2.9	2.9
BORE SIZES		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



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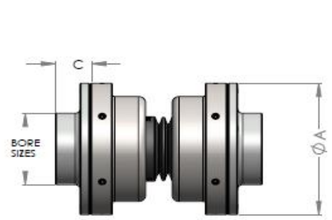
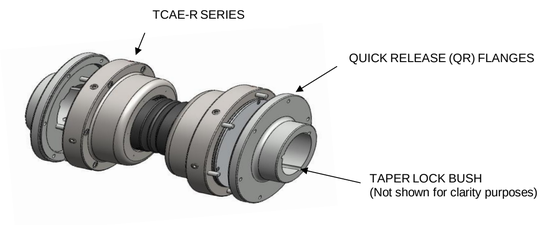


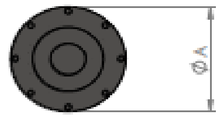
COUPLING WITH QUICK RELEASE FLANGES AND BUSHES



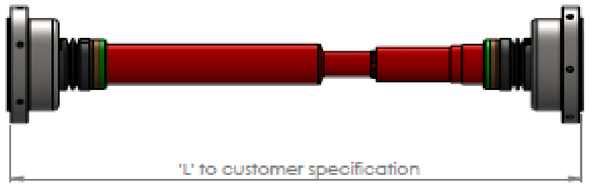
* Power Cap. at maximum rated speed available in detailed technical specifications.

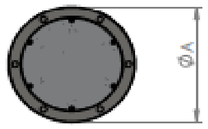
TCAE-L SERIES : SPECIFICATIONS

PARAMETERS		UNIT	TCAE-L-1	TCAE-L-2	TCAE-L-3	TCAE-L-4	TCAE-L-5	TCAE-L-6	TCAE-L-7
MAXIMUM STATIC TORQUE		lbs-in	22,127	51,157	102,350	138,780	211,639	262,814	373,838
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	BHP	17	40	66	104	166	223	322
	1500 RPM	BHP	23	56	91	143	231	309	448
	3000 RPM	BHP	40	99	159	247	405	n/a *	n/a *
MAXIMUM MISALIGNMENT ANGLE		Degree °	10	10	10	10	10	10	10
MAXIMUM PARALLEL SHAFT OFFSET		in	dependant on customer length						
MAXIMUM SERVICE TEMPERATURE		F	210	210	210	210	210	210	210
SERVICE LIFE			As per customer application						
DIMENSION ØA		in	5.8	7.0	8.5	10.0	10.9	11.8	13.0
DIMENSION L (MINIMUM)		in	12.1	15.2	16.9	18.6	19.7	22.9	25.3
AXIAL EXPANSION		+/- in	0.6	0.8	0.9	1.1	1.1	1.1	1.2



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
MAXIMUM STATIC TORQUE		lbs-in	558,588	814,463	1,257,691	1,656,683	2,298,539	3,035,806	618,380
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	BHP	424	540	793	1,126	1,557	2,079	2,927**
	1500 RPM	BHP	592	750	n/a *	n/a *	n/a *	n/a *	n/a *
MAXIMUM MISALIGNMENT ANGLE		Degree °	10	10	10	10	10	10	8
MAXIMUM PARALLEL SHAFT OFFSET		in	dependant on customer length						
MAXIMUM SERVICE TEMPERATURE		F	210	210	210	210	210	210	210
SERVICE LIFE			As per customer application						
DIMENSION ØA		in	14.6	13.2	14.8	16.5	18.2	19.8	22.8
DIMENSION L (MINIMUM)		in	29.9	21.1	22.4	25.6	28.1	30.3	33.1
AXIAL EXPANSION		+/- in	1.4	1.6	1.6	1.7	1.8	2.0	2.0

* Power Cap. at maximum rated speed available in detailed technical specifications.

** Power Cap. at maximum rated speed of 800 rpm.

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