



## Fluid Couplings



*Components  
that save  
energy*

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\* Conical shaft with the major diameter indicated.

# *Introduction*



*“Spend less on energy,  
longer life for your machinery.”*

At Arahidra, we are experts in designing and manufacturing fluid couplings custom-made for your machinery. With them, you will save energy and you will be able to take advantage of your machines for much longer, avoiding breakdowns.

### **Why is a coupling needed?**

Using our couplings will get the best yield from your machinery, it will reduce motor start-up time to 10%, and heating to 25%. As such, it will increase its useful life and you will save on electricity.

### **A very profitable investment**

Continual increases in electricity prices make energy saving even more essential for your company. Installing fluid couplings on your machinery will reduce the impact of these increases you will recover the cost in very little time.

It will also increase the trustworthiness of your machinery, decreasing the number of incidents. This translates to greater profitability forever.

### **You do not need bigger machinery; rather, machinery that functions better**

Thanks to the energy optimization provided by the couplings, you will be able to use lower power, more economical motors, obtaining the same result as with those of greater size.

### **Guarantee and trust**

All of our pieces are expressly manufactured for your needs, and their useful life is guaranteed throughout many years.

Notwithstanding, our post-sales service guarantees the solution of any incident with the greatest speed.



*Arahidra*



## Company

Located in Zaragoza, the centre of the Spanish industrial triangle formed by Madrid, Catalonia and Basque Country, at Arahidra we are specialists in the design, manufacture and commercialization of hydraulic pulleys and couplings for all transmission types.

## Team

We are responsible for the quality of our products from start to finish, and we have the human and technological team necessary throughout the entire process. As such, you can be sure that you have a professional technical service that knows your needs from the very beginning.

## Facilities

Arahidra has the facilities necessary to manufacture their couplings and pulleys in all production phases, besides everything necessary for designing and manufacturing custom-made solutions for your machinery. We continuously carry out the moulding and casting for all of our pieces, as well as the manufacture and repair of third-party pieces. We can always offer you a better price.

## Quality certifications

### ISO 9001/2008,

Following certifications helps us to improve operation in the organization. Greater operational efficiency is the result of following said certification. The quality management system auditing is focused on the operative process. ISO 9001 additionally allows our employees to feel more involved through improvement in communications. Continual evaluation visits can highlight any deficiency in employee abilities and highlight any problem with the development of work in the team.

The plan, do, check, act structure of ISO 9001 ensures that client needs are going to keep being considered and made known.

**ATEX certification according to directive 94/9 CE II 2 GD**



# *The fluid coupling*



*«The fluid coupling transmits motor axle or shaft torque to another solely with hydrodynamic contact action. It thereby avoids mechanic connection between them, without rigid or elastic element contact.»*



In and of itself, the coupling consists of two power transmission elements: Impeller and runner, with a great number of upright radial palettes and a casing with a measured quantity of extra fluid oil inside.

It is composed of a driving plate, the coupling itself and an elastic coupling.

This assembly achieves a certain level of angular flexibility to compensate small alignment errors in motor and receptor shafts. In the same way, the coupling is not supported solely by the motor shaft.

Power is transmitted from the impeller; it acts as a centrifugal pump, creating an oil current whose flow passes to the runner, which in turn acts as a turbine, forming the working circuit between them. The oil current cedes power as it flows between the runner palettes. Afterward, it returns to the impeller and repeats the cycle again.

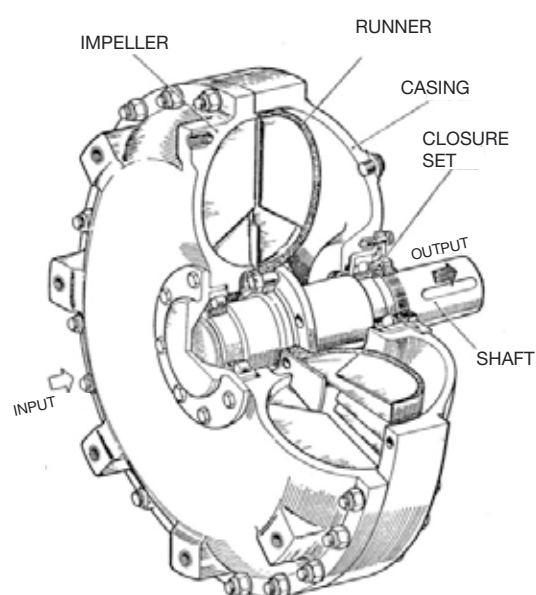
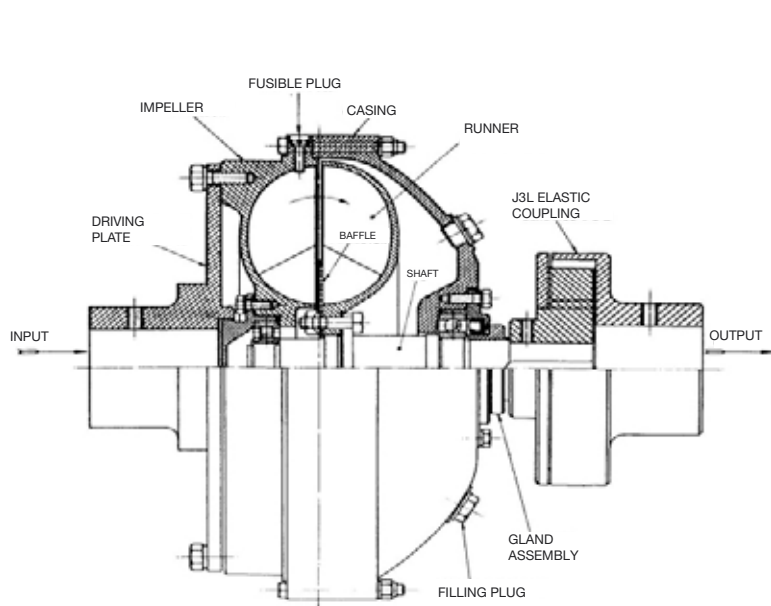
Depending on the initial oil fill level, the start-up torque available, with the motor at rated speed, it can be regulated between 150% and 250% of its rated torque.

In this way, the fluid couplings also act to limit the maximum torque applied to all machines exposed to brusque draughts.

Given that the torque transmitted adjusts with great precision, varying the initial oil fill, it can be used with great advantages with drive groups for machines subject to strong start-up efforts, and those with great rotational inertia.

Once the overload situation is resolved, the coupling will re-establish normal operational speed for the machined acted upon, thanks to the non-mechanical connection between the input and output shafts.

Lastly, the minimum sliding of the coupling should be noted. Depending on the real power absorbed by the machine, it will oscillate between 2% and 4%.



*Qualities  
and  
advantages*



- 1. Reduction in transmission component wear and breakage.** Thanks to a secure, robust, automatic and reversible couplings, which ensures gentle operation and the absorption of brusque stops.
- 2. Elevated yield at rated speed,** excellent under variable load.
- 3. Reduction of fatigue for driven components and sliding risks for heavy vehicles on tracks or rails.** It allows for a progressive start-up, regulated by varying fill level, and for an internal combustion motor, by simply accelerating the motor.
- 4. Motor start-up at low power.** It allows motors to start-up practically empty, under a torque close to maximum torque, even when the machine is under full load. With electric motors, it allows for starting up by working the motor at a very reduced intensity.
- 5. Practically null maintenance and wear.**
- 6. Filters cyclical irregularities in internal combustion motors,** avoiding using elevated inertia moment steering wheels. Additionally, it muffles torsion oscillations according to fluid inertia. All of this thanks to the lack of an oscillation period in itself, susceptible to provoking resonance phenomena and the fact that the oil is practically non-compressible.
- 7. Withstands prolonged start-ups without inconveniences,** conditioned by its regulation and by inertia upon starting up.
- 8. It allows to simplify electrical installations** by employing squirrel cage motors simpler, more robust and less burdensome than ring ones.
- 9. It allows to install several motors in a parallel,** distributing their loads.
- 10. Limits the torque transmitted in the machine's draft,** thereby protecting the motor from the dangerous effect of an accidental load, which the coupling's sliding automatically adapts to.

# *Operation*



Taking into account that the impeller and the runner are symmetrical and that their blades are flat and radial, the apparatus may spin in both directions with the same yield.

The oil filling the impeller blades, moved by the motor, is subjected to the centrifugal force.

The runner is braked by the resisting torque and the machine's inertia; the oil filling it is initially resting, even though the impeller is already in movement.

The oil, under centrifugal pressure in the exterior circumference of the impeller, penetrates the runner blades, making an equivalent volume of the oil go toward the interior part, thereby returning to the impeller.

Then, a meridian circulation of the oil is produced between the runners, making at the same time a hydrodynamic contact between them and a tangential force on the runner blades, depending on the impeller rotation movement. fig.1

The liquid circulation through the runner-impeller set takes on the shape of a circular helix. This way, a fluid particle will acquire adopt a circular helix trajectory. Due to the difference between the quantities of movement between the oil entering and exiting the runner, the impulse creates a constant torque which causes the machine to start up, a torque supplied by the motor based on the action-and-reaction principle.

Once in movement, the runner accelerates its speed progressively, without ever equalling it.

The sliding produced is indispensable for the coupling's operation, and equivalent to the difference in speeds between the impeller and the runner, necessary for the fluid's kinetic energy to transform, which translates to mechanical runner energy.

Sliding is normally expressed in % in respect to the impeller's angular speed:

$$\begin{aligned} n_1 &= \text{impeller speed} \\ n_2 &= \text{runner speed} \\ S &= \text{sliding} \\ n_2 &= n_1 \times \frac{100 - S}{100} \quad \text{therefor} \quad \frac{S}{100} = \frac{n_1 - n_2}{n_1} \end{aligned}$$

Sliding is between 4% and 2%, according to the application and the power transmitted, with a yield between 96 and 98%. The small energy loss upon transmitting the power from the motor shaft to the receptor shaft is transformed into calorific energy, and is radiated throughout the exterior surface of the apparatus, whose normal operational temperature oscillates between 60 and 70 °C.

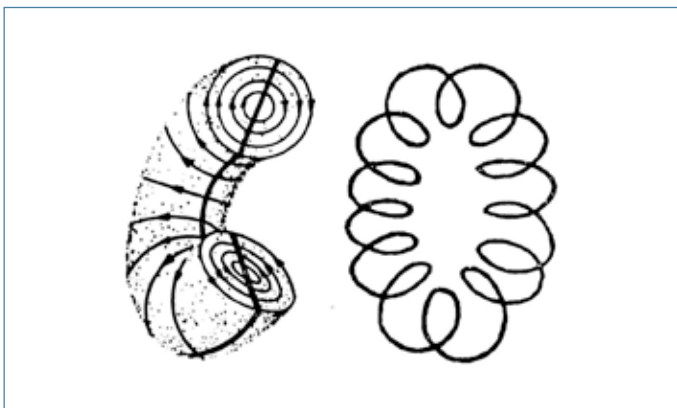


Fig 1



# *Applications*



*The fluid coupling has effectively contributed to being able to generalize, in a multitude of applications, the employment of motors with direct start-up; the most simple, secure and least expensive on the market.*

*Reasons to use it:*

## APPLICATION WITH INTERNAL COMBUSTION MOTORS

Apart from employment with electric motors, it is quite advantageous for use with combustion motors (with dozens of CV in operation)

1. The fluid couplings allows for a gentle and progressive increase in driving power, simply upon accelerating the motor.
2. The motor can develop the maximum torque upon accelerating the load from on standby.
3. It can sustain the transmission mechanism on idle during a few minutes.
4. The motor does not stop because of going on overload.
5. It does not transmit torsion oscillations, nor severe load shocks.
6. Large decrease in general wear and breakdowns. Equipment life is thereby increased. This is all applicable to crankshafts, gearshifts (if used), pinions, metallic cables, etc.
7. It provides control superior to vapour in applications with lathes, hoists, etc. By the same effect, the motor velocity interval extends from the machine to zero.
8. It eases the arrangement of two or more motors on one common shaft, working in a parallel fashion or in a series on one same system.
9. In the case of wheel traction, heavier loads can be moved than with friction gearshifts on wet, slipper tracks or roadways with snow, all thanks to the gentle torque application.

## APPLICATION WITH ELECTRIC MOTORS

There are many reasons that the use of the fluid couplings has been generalized in the last years.

1. It allows for rapid start-up, even with an overloaded machine.
2. It allows the motor to develop its maximum torque to accelerate the load.
3. The acceleration of the force is as gentle as possible, and its interval can be adjusted by varying the fill.
4. The torque transmitted can be limited to a pre-determined value, even if the force transmission frequently stalls.
5. The motor can continue turning a certain time without losing torque while the dragged machine is stalled.
6. It allows to simplify electrical equipment, because it provides more favourable start-up and operational conditions.
7. Mechanical and electrical failures are reduced by eliminating excessive efforts and crashes.
8. Possibility of distributing load, if two or more motors transmit their force to one common mechanism through the couplings.
9. Increases ease and smoothness in control.



# Catalogue



# ARAHIDRA TA TYPES



*Sizes 8 to 29*

**Conveyer belts · Chain conveyers · Screw conveyers · Redler conveyers · Bucket elevators · Mixers and agitators · Shredders · Bead mills · Hammer mills · Hoists · Traction lathes · Bark ripper drums · Centrifuges · Pumps and ventilators · Marine transmissions · Etc.**

TA-type fluid coupling form a compact and robust unit, whose main components are alloy aluminium pieces. They consist of a basic hydraulic body, a rigid entry plate and an elastic coupling on the exit shaft.

All couplings, excepting small-sized ones, are provided with a protective fusible plug against excess temperature elevation in case the motor protection relay fails in prolonged idle or overload conditions.

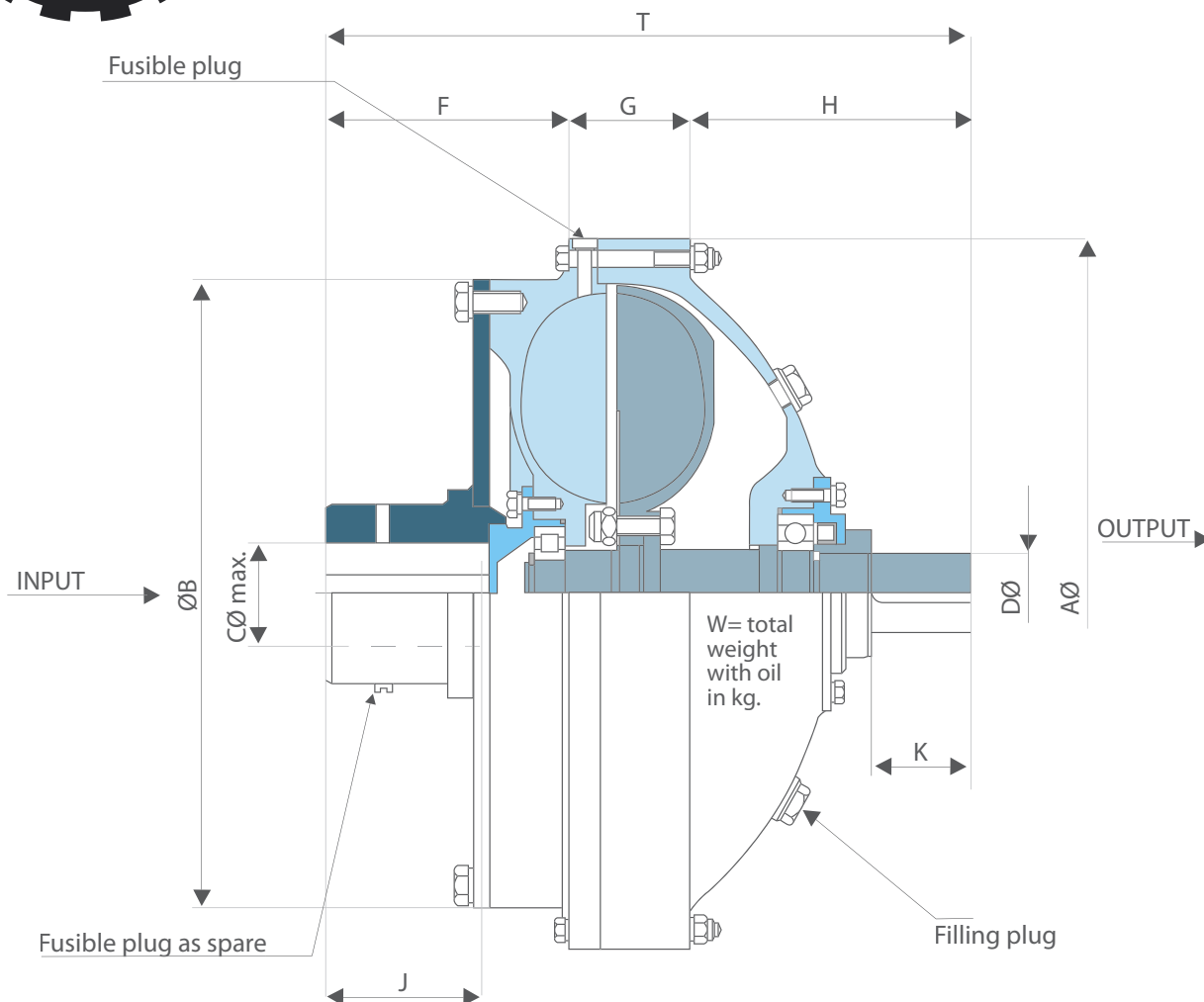
The holes and keyways may be mechanized at client requirement. Available in 13 sizes, from 1 to 1,000 CV at 1,450 RPM.

They may be assembled in a vertical position.





Sizes 8 to 29



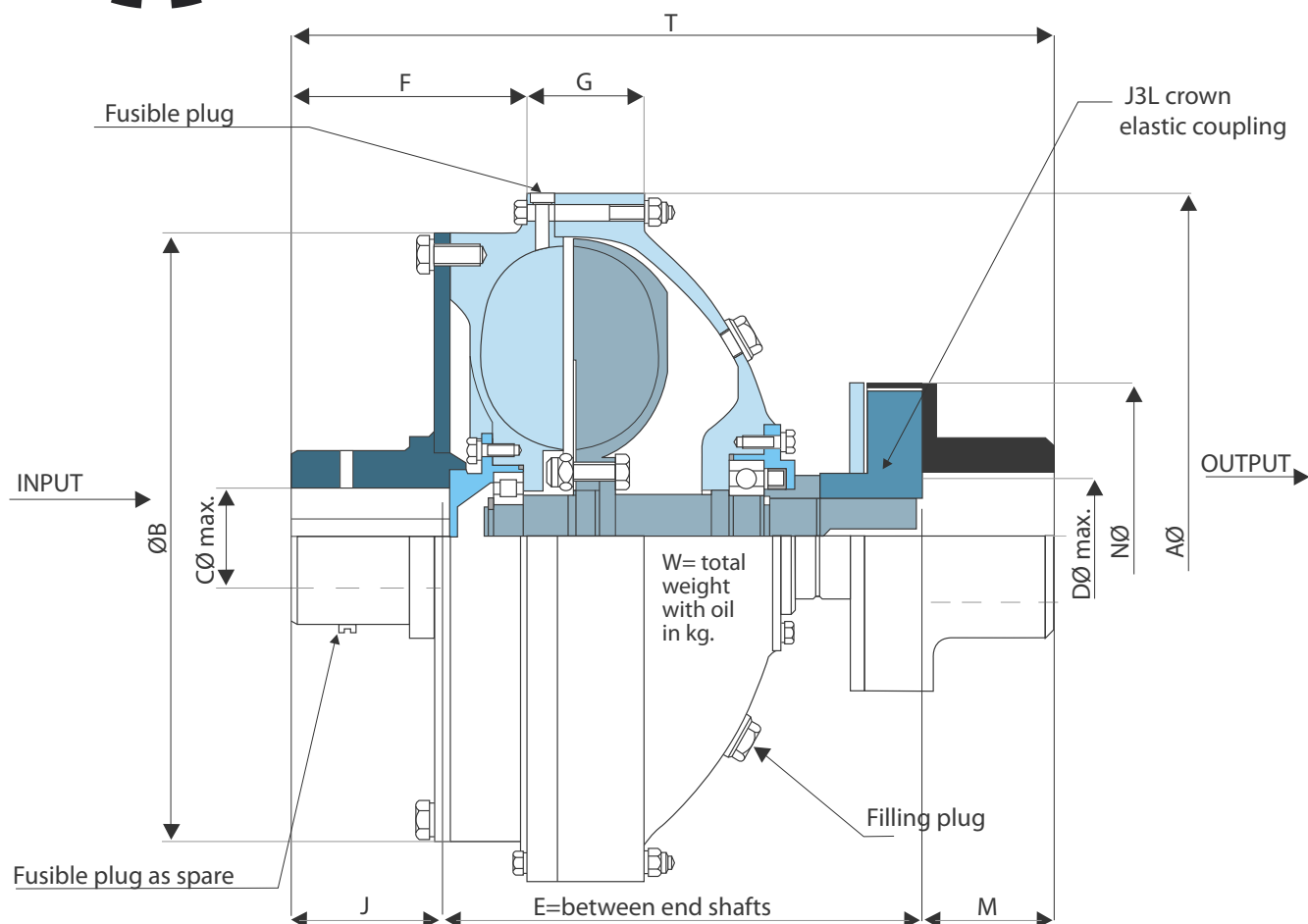
## TSA TYPE

SIZE	A	B	C	D	F	G	H	J	K	T
TA-8	235	205	35	25	47	63	93	46	35	203
TA-9,25	268	255	55	30	68	68	113,5	65	41	249,5
TA-10,5	308	290	55	30	68	75	121,5	65	41	264,5
TA-11,5	335	325	65	38	83	81	140,5	80	53	304,5
TA-12,75	369	325	65	38	83	107	144	80	53	334
TA-14,5	420	370	80	48	100	119	164,5	98	65	383,5
TA-16,25	455	410	80	48	100	128	184,2	98	65	412,2
TA-17,75	503	460	85	54*	113	123	216,3	110	90	432,3
TA-20	578	578	100	54*	123	136	239,7	120	90	478,7
TA-23	660	660	110	70*	150	152	279,4	146	110	561,4
TA-26	755	755	120	85*	152	173	307	150	125	612
TA-29	840	840	130	85*	157,5	190	484,5	150	130	807

\* Conical shaft with the major diameter indicated.



Sizes 8 to 29



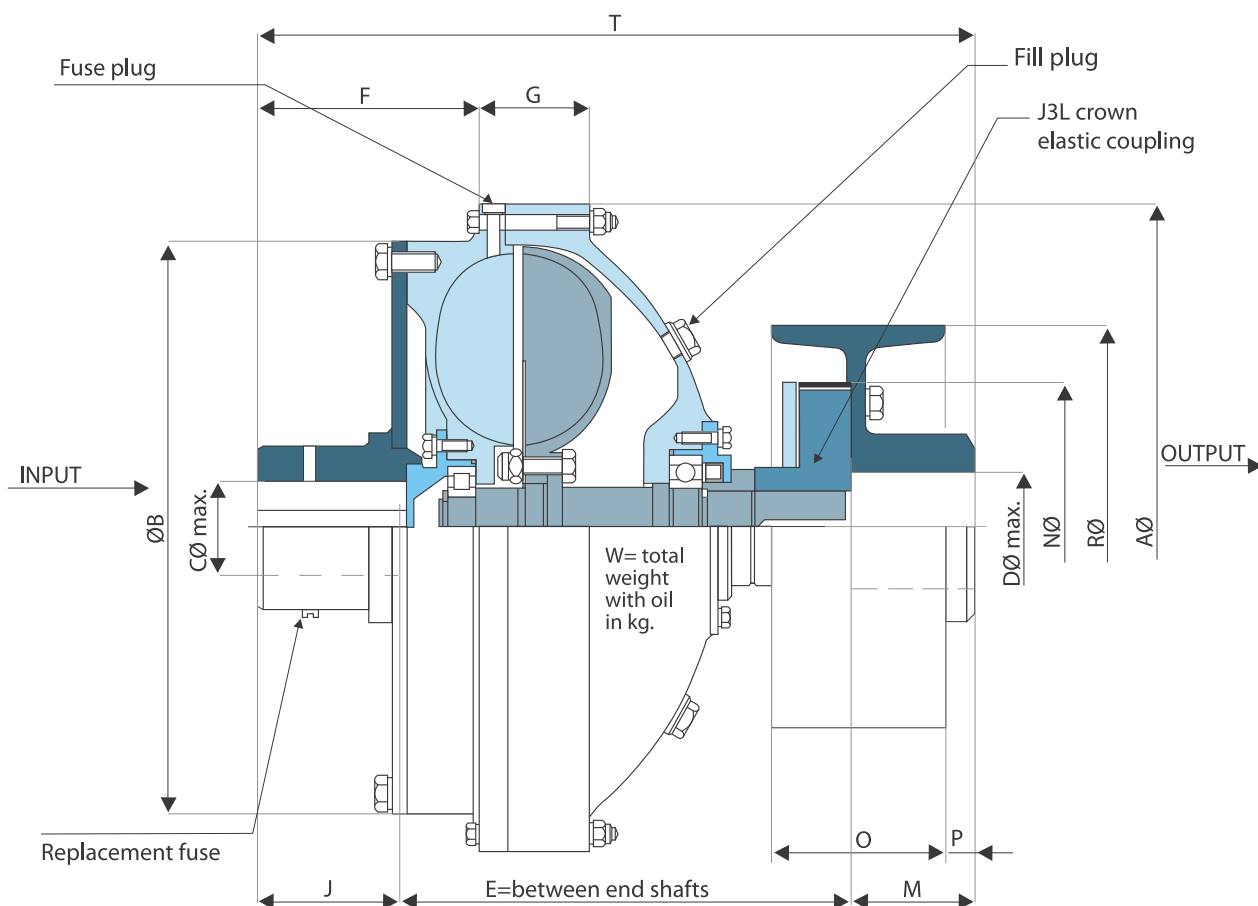
## STANDARD TA TYPE

	MAX POWER IN CV			QUANTITY OF OIL Litres	WEIGHT kg	PRIMARY GD2 PART kgm <sup>2</sup>	A	B	C	D	E	F	G	J	M	N	T
	720	960	1450														
TA-8	0,5	1,2	4	1,46	8	0,25	235	205	35	40	158	47	63	46	40	80	244
TA-9,25	1	2,25	7,5	2,28	16	0,34	268	255	55	50	185	68	68	65	50	115	300
TA-10,5	1,75	4,5	15	3,57	21	0,54	308	290	55	50	200	68	75	65	50	115	315
TA-11,5	3	7,5	20	4,23	34	0,75	335	325	65	75	225	83	81	80	70	170	375
TA-12,75	5	12,5	40	6,35	38	1,38	369	325	65	75	255	83	107	80	70	170	405
TA-14,5	8,5	20	75	9,27	58	2,53	420	370	80	80	287	100	119	98	80	210	465
TA-16,25	15	35	110	13,9	68	4,2	455	410	80	80	315	100	128	98	80	210	493
TA-17,75	22	55	175	16,5	101	6	503	460	85	100	344	113	123	110	100	260	554
TA-20	40	100	225	24,3	136	12	578	578	100	100	381	123	136	120	100	260	601
TA-23	85	200	400	36,1	199	23	660	660	110	100	437	150	152	146	100	260	683
TA-26	150	300	600	52,8	314	38	755	755	120	130	484	152	173	150	130	330	764
TA-29	250	425	1.000	76,2	360	65	840	840	130	140	552	157,5	190	150	130	325	832



# with Brake Pulley

Sizes 8 to 29



## TA TYPE WITH BRAKE PULLEY

SIZE	A	B	C	D	E	F	G	J	N	T*
TA-8	235	205	35	40	158	47	63	46	80	244
TA-9,25	268	255	55	50	185	68	68	65	115	300
TA-10,5	308	290	55	50	200	68	75	65	115	315
TA-11,5	335	325	65	75	225	83	81	80	170	375
TA-12,75	369	325	65	75	255	83	107	80	170	405
TA-14,5	420	370	80	80	287	100	119	98	210	465
TA-16,25	455	410	80	80	315	100	128	98	210	493
TA-17,75	503	460	85	100	344	113	123	110	260	554
TA-20	578	578	100	100	381	123	136	120	260	601
TA-23	660	660	110	100	437	150	152	146	260	683
TA-26	755	755	120	130	484	152	173	150	330	764
TA-29	840	840	130	140	552	157,5	190	150	325	832

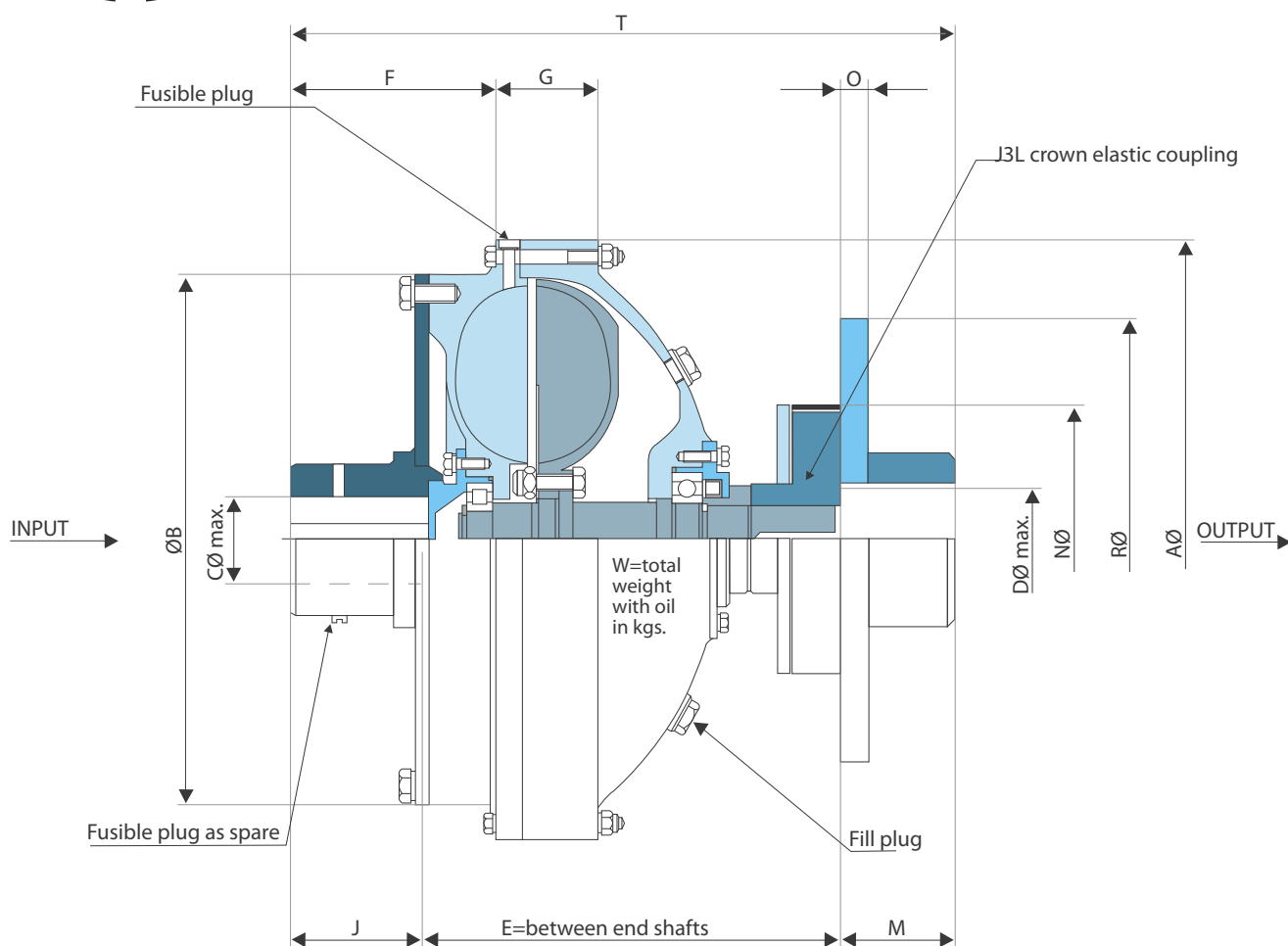
BRAKE PULLEY			
R	O	P	M
100	60	10	44
150	80	10	55
180	80	20	65
200	80	20	65
250	100	25	81
300	110	25	87
315	125	25	93
350	130	25	98
400	150	25	110
450	170	25	121
500	200	25	137
630	250	25	162

\* On couplings with brake pulley the total length T varies depending on the pulley.  
Length T is the result of adding J+E+M (brake pulley M)



## with Brake Disk

Sizes 8 to 29



### TA TYPE WITH BRAKE DISK

SIZE	A	B	C	D	E	F	G	J	M	N	T
TA-8	235	205	35	40	158	47	63	46	40	80	244
TA-9,25	268	255	55	50	185	68	68	65	50	115	300
TA-10,5	308	290	55	50	200	68	75	65	50	115	315
TA-11,5	335	325	65	75	225	83	81	80	70	170	375
TA-12,75	369	325	65	75	255	83	107	80	70	170	405
TA-14,5	420	370	80	80	287	100	119	98	80	210	465
TA-16,25	455	410	80	80	315	100	128	98	80	210	493
TA-17,75	503	460	85	100	344	113	123	110	100	260	554
TA-20	578	578	100	100	381	123	136	120	100	260	601
TA-23	660	660	110	100	437	150	152	146	100	260	683
TA-26	755	755	120	130	484	152	173	150	130	330	764
TA-29	840	840	130	140	552	157,5	190	150	130	325	832

BRAKE DISK	
O	R
6, 12,5 y 25	200
6, 12,5 y 25	250
6, 12,5 y 25	300
6, 12,5 y 25	350
6, 12,5 y 25	400
6, 12,5 y 25	450
6, 12,5 y 25	500
6, 12,5 y 25	550
6, 12,5 y 25	600
6, 12,5 y 25	650
6, 12,5 y 25	700



## ARAHIDRA TYPES TA







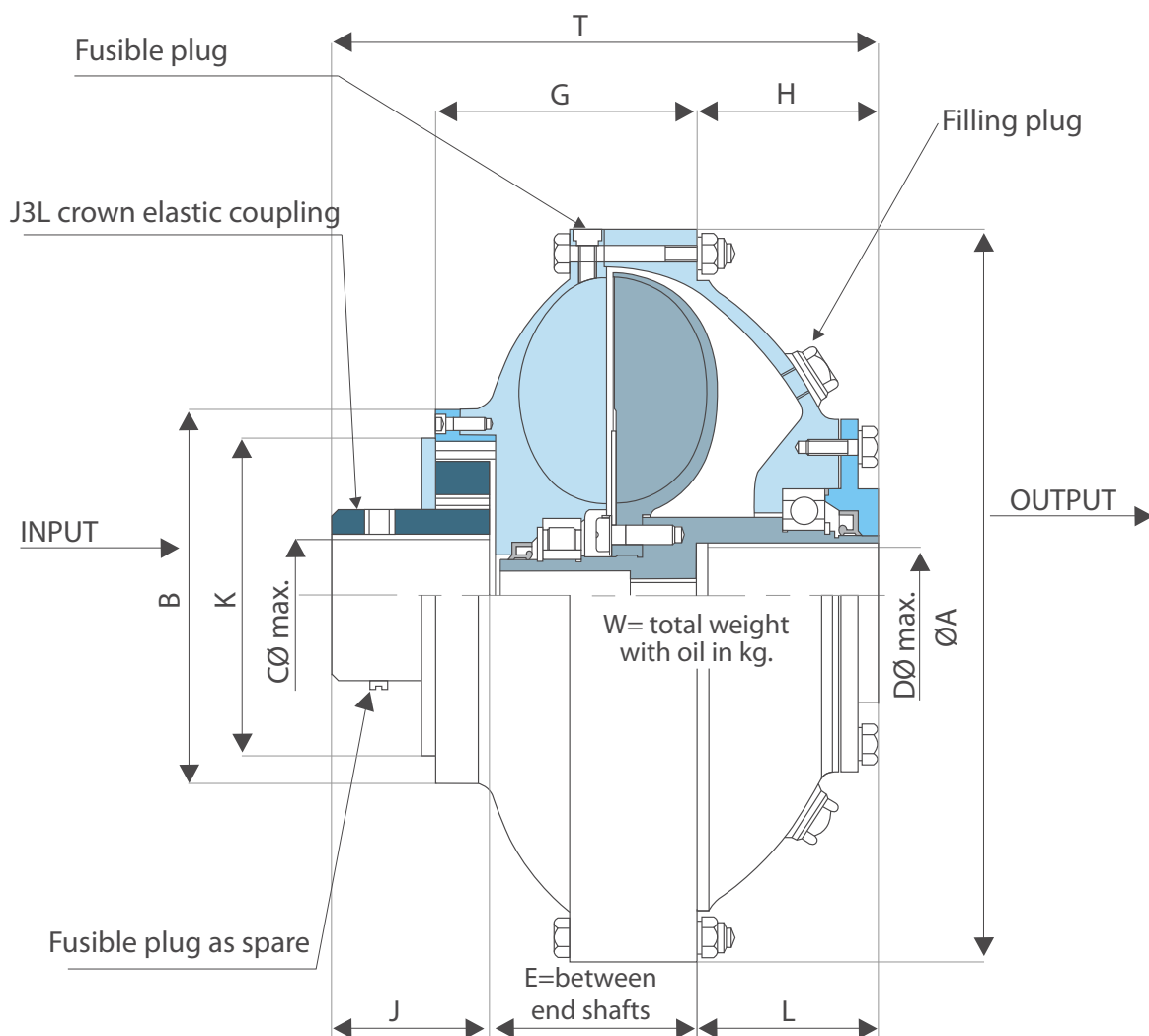
Sizes 8 to 26

**Conveyer belts · Chain conveyers · Screw conveyers · Redler conveyers · Bucket elevators · Mixers and agitators · Shredders · Bead mills · Hammer mills · Hoists · Traction lathes · Bark ripper drums · Rotating dryers · Centrifuges · Pumps and ventilators · Marine transmissions · Etc.**

HA-type fluid couplings form a compact and robust unit, whose main components are alloy aluminium pieces. Their main characteristic is a hollow shaft to house the driven machine shaft, upon which an elastic coupling rests where the driving shaft is normally housed. This allows the distance between motor and machine shafts to be reduced to a maximum and to align the ensemble in the simplest way.

All couplings, excepting small-sized ones, are provided with a protective fusible plug against excess temperature elevation in case the motor protection relay fails in prolonged idle or overload conditions. The holes and keyways may be mechanized at client request.

Available in 12 sizes, from 1 to 600 CV at 1,450 RPM. See selection table on the following page. They may be assembled in a vertical position.



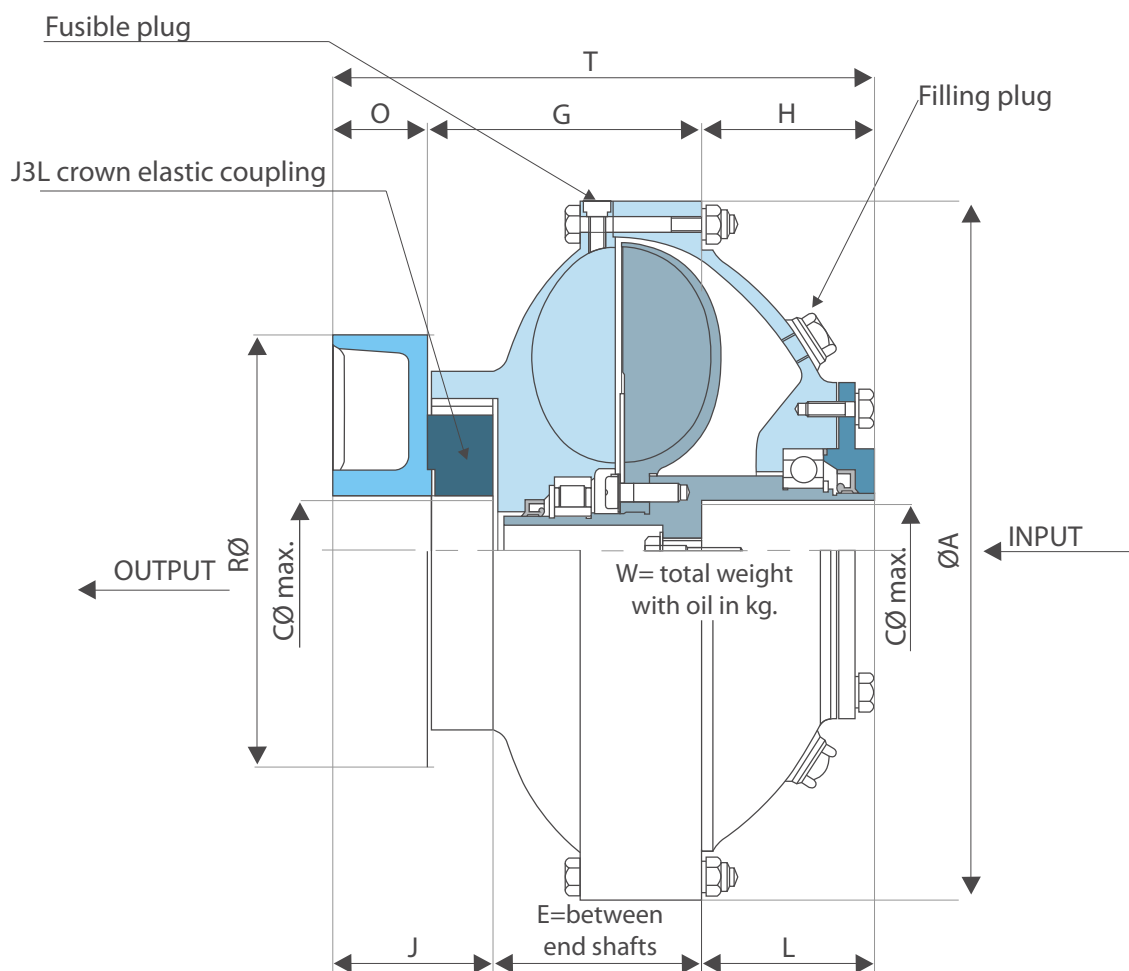
### STANDARD HA TYPE

	MAX POWER IN CV			QUANTITY OF OIL Litros	WEIGHT kg	PRIMARY GD2 PART kgm <sup>2</sup>	A	B	C	D	E	G	H	J	K	L	T
	720	960	1450														
HA-8	0,5	1,2	4	1,46	6,7	0,25	235	112	28	32	58	74,5	60	40	80	62	160
HA-9,25	1	2,25	7,5	2,28	11,5	0,34	268	150	40	40	67	88	68,5	50	115	70	187
HA-10,5	1,75	4,5	15	3,57	15,5	0,54	308	150	40	40	67	90,5	76	50	115	80	197
HA-11,5	3	7,5	20	4,23	25	0,75	335	212	60	50	77,2	107	84,2	70	170	85	232,2
HA-12,75	5	12,5	40	6,35	29	1,38	369	212	60	50	84	125	88	70	170	100	254
HA-14,5	8,5	20	75	9,27	46	2,53	420	255	70	60	94	141	97	80	210	110	284
HA-16,25	15	35	110	13,9	54	4,2	455	255	70	65	105,5	161,3	103,2	80	210	125	310,5
HA-17,75	22	55	175	16,5	84	6	503	320	90	80	122	165	140	100	260	140	362
HA-20	40	100	225	24,3	99	12	575	320	90	80	133	176	140	100	260	140	373
HA-23	85	200	400	36,1	154	23	660	400	110	100	144,5	216,6	165,4	130	330	180	454,5
HA-26	150	300	600	52,8	200	38	755	400	120	110	145	232	181	150	330	210	505



## with Brake Pulley

Sizes 8 to 26



### HA TYPE WITH BRAKE PULLEY

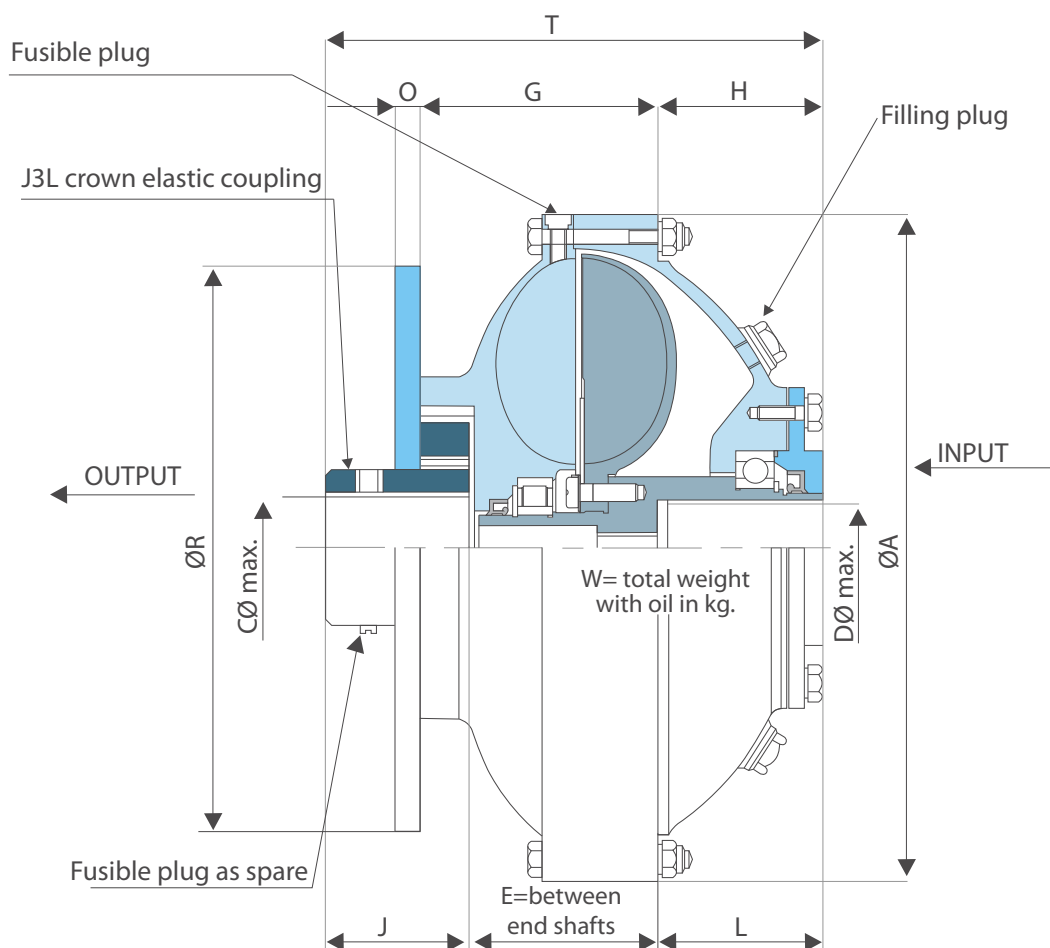
SIZE	A	C	D	E	G	J	L	H	T
HA-8	235	28	32	58	74,5	40	62	60	160
HA-9,25	268	40	40	67	88	50	70	68,5	187
HA-10,5	308	40	40	67	90,5	50	80	76	197
HA-11,5	335	60	50	77,2	107	70	85	84,2	232,2
HA-12,75	369	60	50	84	125	70	100	88	254
HA-14,5	420	70	60	94	141	80	110	97	284
HA-16,25	455	70	65	105,5	161,3	80	125	103,2	310,5
HA-17,75	503	90	80	122	165	100	140	140	362
HA-20	575	90	80	133	176	100	140	140	373
HA-23	660	110	100	144,5	216,6	130	180	165,4	454,5
HA-26	755	120	110	145	232	150	210	181	505

BRAKE PULLEY	
R	O
100	60
150	80
180	80
200	80
250	100
300	110
315	125
350	130
400	150
450	170
500	200



## with Brake Disk

Sizes 8 to 26



### HA TYPE WITH BRAKE DISK

SIZE	A	C	D	E	G	J	L	H	T
HA-8	235	28	32	58	74,5	40	62	60	160
HA-9,25	268	40	40	67	88	50	70	68,5	187
HA-10,5	308	40	40	67	90,5	50	80	76	197
HA-11,5	335	60	50	77,2	107	70	85	84,2	232,2
HA-12,75	369	60	50	84	125	70	100	88	254
HA-14,5	420	70	60	94	141	80	110	97	284
HA-16,25	455	70	65	105,5	161,3	80	125	103,2	310,5
HA-17,75	503	90	80	122	165	100	140	140	362
HA-20	575	90	80	133	176	100	140	140	373
HA-23	660	110	100	144,5	216,6	130	180	165,4	454,5
HA-26	755	120	110	145	232	150	210	181	505

BRAKE DISK	
O	R
6, 12,5 y 25	200
6, 12,5 y 25	250
6, 12,5 y 25	300
6, 12,5 y 25	350
6, 12,5 y 25	400
6, 12,5 y 25	450
6, 12,5 y 25	500
6, 12,5 y 25	550
6, 12,5 y 25	600
6, 12,5 y 25	650
6, 12,5 y 25	700

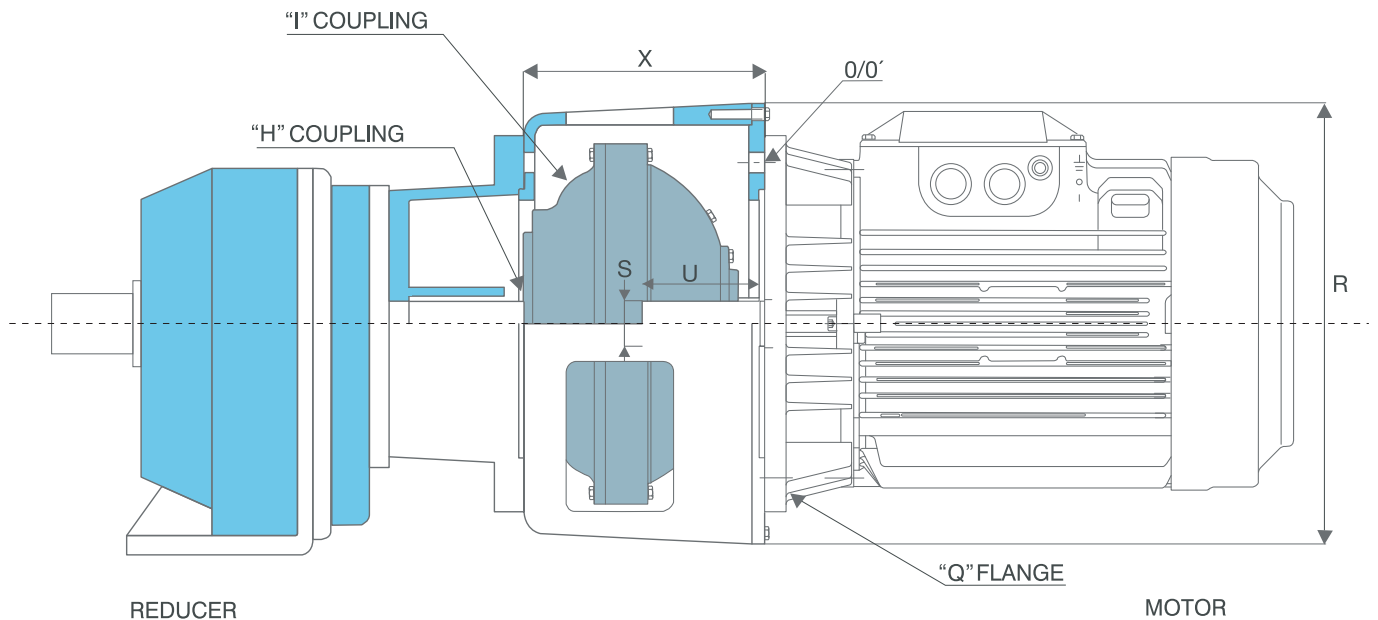


## with Normalized Flange Motor

Sizes 8 to 20

### Characteristics

It incorporates all the advantages of the fluid couplings into the gear motors. Easy assembly (only nuts and bolts are used). Rapid access to perform maintenance. Adaptable to normalized B5 flange (consult us about other flange types).





## HA TYPE WITH FLANGE MOTOR

TYPE 'I' COUPLING	DIMENSIONS IN MM								
	'H' COUPLING	NUM. OF HOLES/ Ø BETWEEN CENTRES 'O/O'	'P' TYPE MOTOR	POWER AT 1450 CV RPM	Ø FLANGE 'Q'	R	S	U	X
HA-8	J3L-80	4/165	80-2	1	200	285	19	40	142
			90S/90L	1,5/2			24	50	
		4/215	100L1/L2	3/4	250	307	28	60	
HA-9	J3L-115	4/215	112M	5,5	250	356	28	60	169,5
		4/265	132S	7,5	300		38	80	
HA-10	J3L-115	4/265	132M	10	300	398	38	80	181
		4/300	160M	15	350		42	110	
HA-11	J3L-170	4/300	160L	20	350	429	42	110	213,2
HA-12	J3L-170	4/300	180M/L	25/30	350	475	48	110	232,5
		4/350	200L	40	400		55		





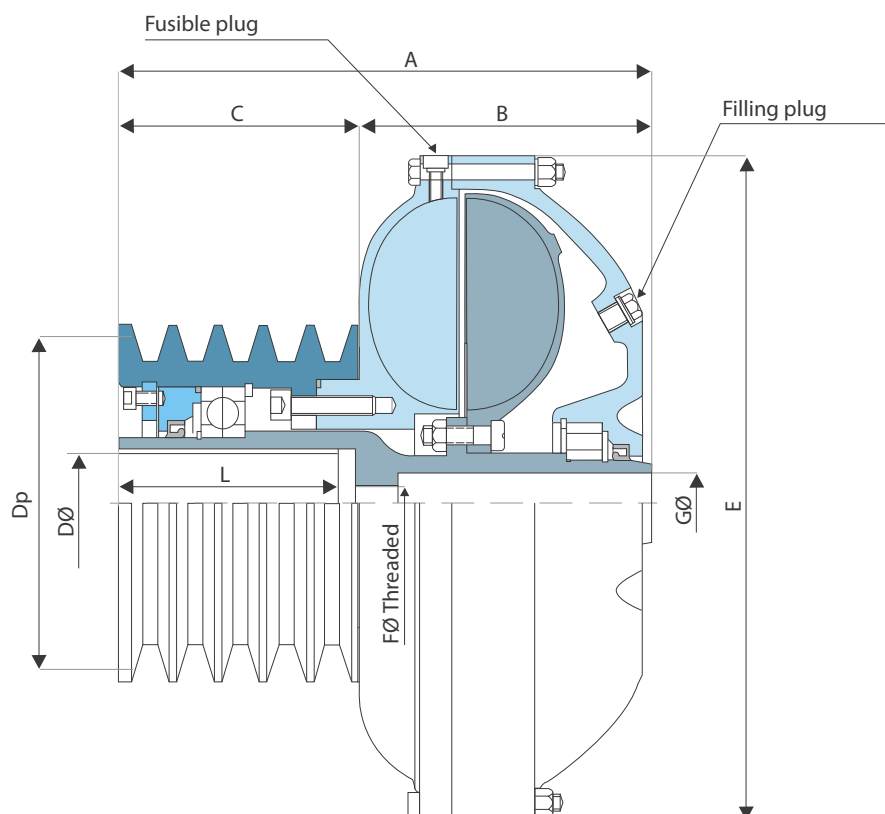
**Conveyer belts · Chain conveyers · Mixers and agitators · Shredders · Bead and hammer mills · Hoists · Traction lathes · Rotating dryers · Centrifuges · Pumps and ventilators · Etc.**

The hydraulic pulley we manufacture is the PA type (removable pulley).

It is the combination of a fluid coupling with a gorges pulley, which replaces the pulley, normally mounted on the motor shaft, in impeller groups with trapezoidal belts. It may be assembled in a quick and easy fashion on new or already existing installations, without needing to disassemble the unit.

All hydraulic pulleys, excepting small-sized ones, are provided with a protective fusible plug against excess temperature elevation in case the motor protection relay fails in prolonged idle or overload conditions.

They may be assembled vertically, and there are 11 sizes available, from 1 CV to 400 CV at 1,450 RPM. See selection table on the following page. The pulley is constructed with cast iron and is joined with fixation screws to the impeller body.



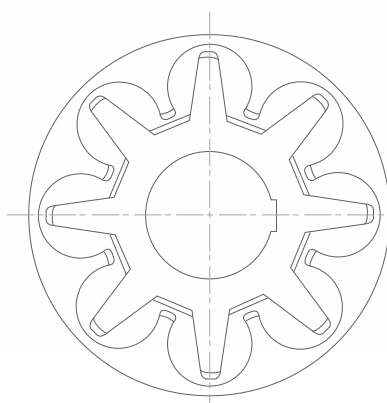
## STANDARD PA TYPE

SIZE	MAX POWER IN CV			QUANTITY OF OIL  Litros	A  Dimensions in mm	B	C	Lmax	E	DØ máx.	GØ	FØ extract. thread	DP	Channels	
	720	960	1450											Num.	Type
PA-8	0,5	1,2	4	1,46	171	118	53	80	235	32	20	M12/175	80-100 110-120	2	A/SPA
PA-9,25	1	2,25	7,5	2,28	201	133	68	100	268	42	25	M16/200	110-120 120-140	2, 3	A/SPA B/SPB
PA-10,5	1,75	4,5	15	3,57	237	153	84	110	308	48	25	M16/200	110-120 130-140	3, 4	A/SPA B/SPB
PA-11,5	3	7,5	20	4,23	275	171	104	110	335	55	30	M20/250	130-140 150-160	4	B/SPB
PA-12,75	5	12,5	40	6,35	323	208	115	140	369	65	30	M20/250	150-160 180-200	4, 5	B/SPB C/SPC
PA-14,5	8,5	20	75	9,27	326	184	142	140	420	65	40	M24/300	200-220 220-240	5	C/SPC
PA-16,25	15	35	110	13,9	384	212	172	170	455	80	40	M24/300	220-240 260-280	4, 6	C/D/ SPC
PA-17,75	22	55	175	16,5	431	236	195	170	503	80	50	M30/350	260-280 300-320	5, 7	D/SPC
PA-20	40	100	225	24,3	473	278	195	170	578	90	50	M30/350	300-320 400-420	5, 7	D/SPC
PA-23	85	200	400	36,1	516 / 567	304	212 / 263	210	660	100	65	M30/350	295-500 295-500	5, 10	D/SPC

\*According to your needs, we can manufacture the DP, number of channels, and belt type you specify in every size.



# J3L ELASTIC COUPLINGS



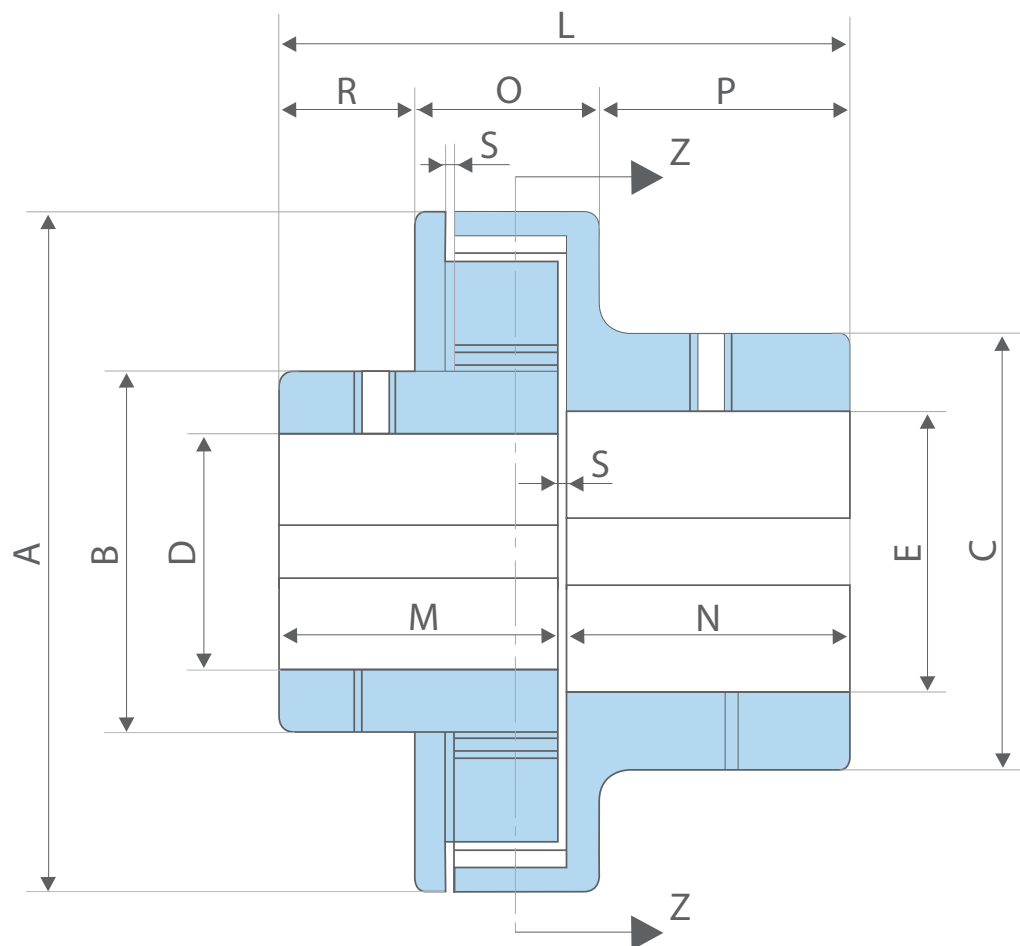
Z-Z VIEW

## Machines with intermediate work

Generators · Conveyor belts · Centrifugal pumps · Rotating compressors · Hoists · Winches · Intermediate hoists · Wood machinery · Textile machinery · Tool machines · Transmissions · Chain conveyers · etc.

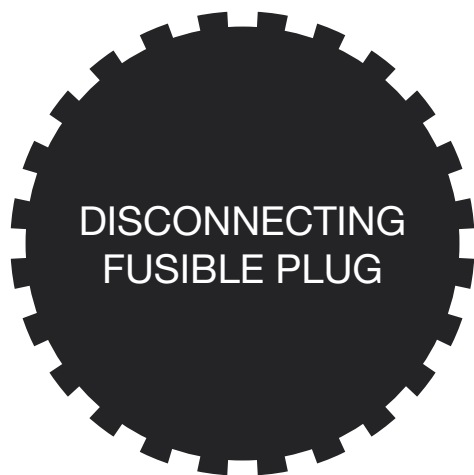
## Heavy work machines

Centrifugals · Hydro-extractors · Presses · Piston compressors · Excavators · Mashers · Mixers · Bead mills · Wireworks · Hoists · Alternative machines.



## ELASTIC J3L COUPLINGS

		MAX. POWER INN CV					DIMENSIONS IN MM																	
SIZE	WORK TYPE	Torque in kg-m	3.000 r.p.m.	1.500 r.p.m.	1.000 r.p.m.	750 r.p.m.	A	B	C	d Brute	D Max.	e Brute	E Max.	L	M	N	O	P	R	S	Max. rpm	Torsion angle	Weight kg	
J3L-80	Intermediate	3	12	6	4	3	80	42	60	17	28	12	40	81	40	40	27	35	19	1	5.000	5°	1,5	
	Heavy	2	8	4	3	2																		
J3L-115	Intermediate	7	30	15	11	7	115	60	75	17	40	15	50	101	50	50	33	44	24	1	5.000	5°	3,2	
	Heavy	5	20	10	7	5																		
J3L-140	Intermediate	15	60	30	22	15	140	75	90	20	50	15	60	121	60	60	40	53	28	1	4.000	5°	5,5	
	Heavy	10	40	20	15	10																		
J3L-170	Intermediate	35	140	70	50	35	170	90	110	32	60	24	75	142	75	75	48	62	32	2	4.000	5°	10	
	Heavy	22	90	50	32	22																		
J3L-210	Intermediate	75	300	150	110	75	210	110	120	35	70	28	80	162	80	80	57	70	35	2	3.000	5°	17	
	Heavy	50	200	100	75	50																		
J3L-260	Intermediate	150	600	300	225	150	260	140	150	45	90	40	100	202	100	100	71	88	43	2	3.000	5°	33	
	Heavy	100	400	200	150	100																		
J3L-330	Intermediate	300	-	600	450	300	330	175	195	55	110	55	130	262	130	130	92	115	55	2	2.000	5°	60	
	Heavy	200	-	400	300	200																		

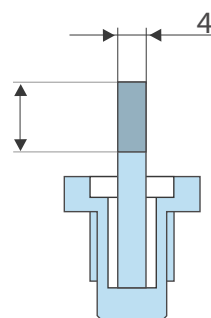
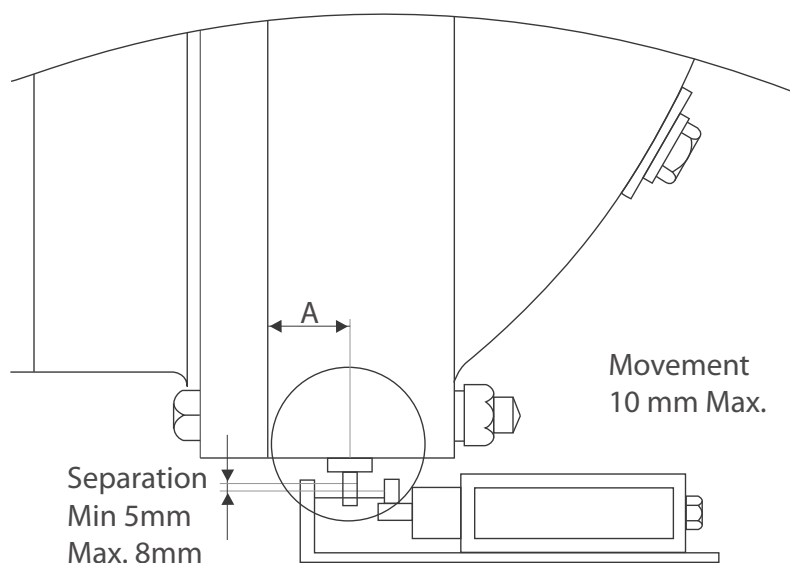


To avoid oil spillage in case of overheating, a disconnecting fusible plug may be placed.

The plug is placed on the exterior diameter of the coupling; it is activated when oil reaches fusion temperature (110°C or 140°C), and then a 10mm peg is liberated from its housing while the couplings is turning, which activates a relay that disconnects the motor or emits an alarm signal.

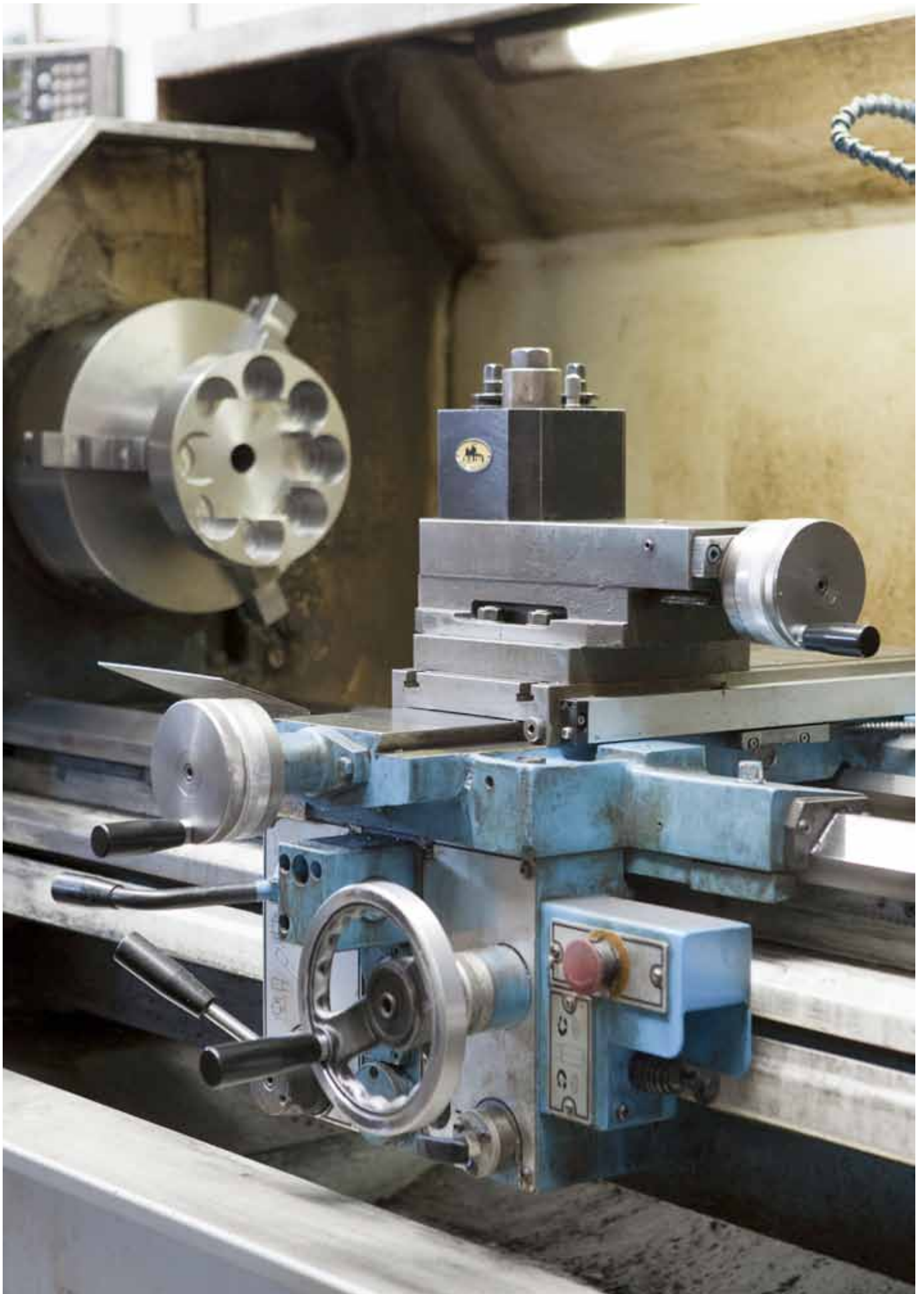
Once the breakdown is detected and solved, the disconnecting fusible plug is substituted by a new one, going back to work without having to change the oil.

It may be assembled on all coupling types. Fusion temperature:  
110°C or 140°C



COUPLINGS	SLOPE AT (mm)
9.25	14
10.25	15
11.25	16
12.75	17
14.5/16.26	20
17.75	30
20/23	35
26	40
29	45





# *Contact*



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