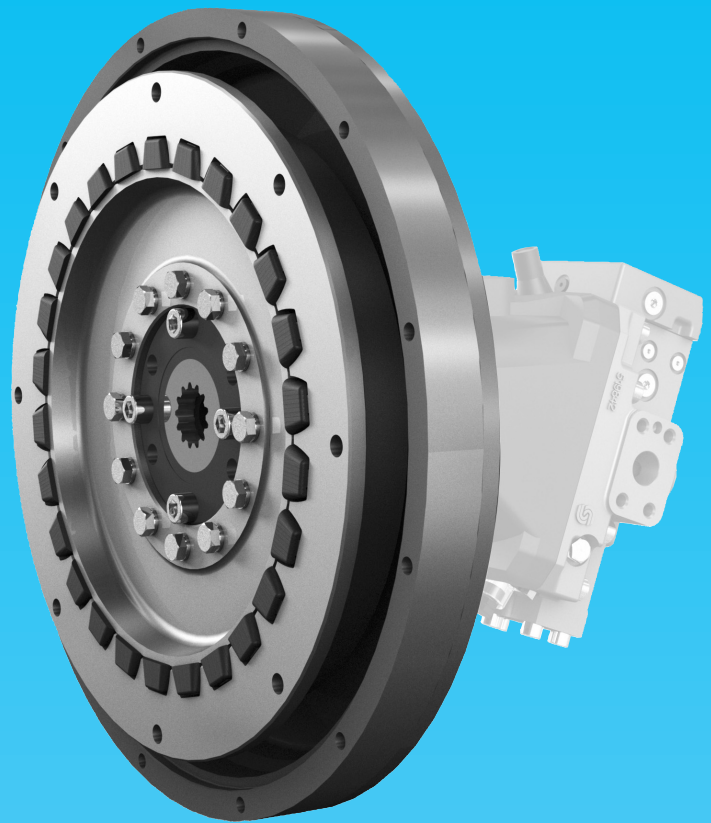


TRANSFLUID



TRANSFLUID

trasmissioni industriali



drive with us

RBD elastic couplings
SRBD single pump drive
PF pto

RBD COUPLINGS

FEATURES

The RBD drives are designed for use with industrial engines in stationary applications such as generators, pumps and compressor sets, and in mobile applications like fork lift trucks and earth moving equipment. RBD drives have many advantages: ease of assembly, weight and size, small axial profile and competitive price. Drives are supplied with standard SAE flanges for ease of installation.

TRANSMISSION DRIVE

Couplings can be provided:

- with or without hub
- with spline or keyway (min. q.ty required)
- with conical locking coupling (standard)
- with housing for hydrostatic drives

TECHNICAL CONSTRUCTION

The drive principle uses internal and external teeth; the difference is that the external teeth are blocks of special rubber molded compound.

By changing the rubber compound, various torques can be transmitted.

The external aluminum ring has a profile corresponding to the rubber molded compound and can be directly mounted on the output flange of the prime mover, allowing it to absorb small angular and radial misalignments.

SELECTION ¹⁾

$$T_{KN} > T_{LN} \cdot S_t \quad (T_{LN} = \text{load torque}; S_t = 1.3)$$

$$T_{Kmax} > T_{LS} \quad (T_{LS} = \text{load peak torque})$$

$$T_{KNAtex} > T_{LN} \cdot S_{tAtex} \quad (T_{LN} = \text{load torque}; S_{tAtex} = 1.56)$$

¹⁾ For torsional vibration calculation, contact Transfluid.

On request other rubber blocks with elastic features and hardness different from the standard are available. For details please contact Transfluid.



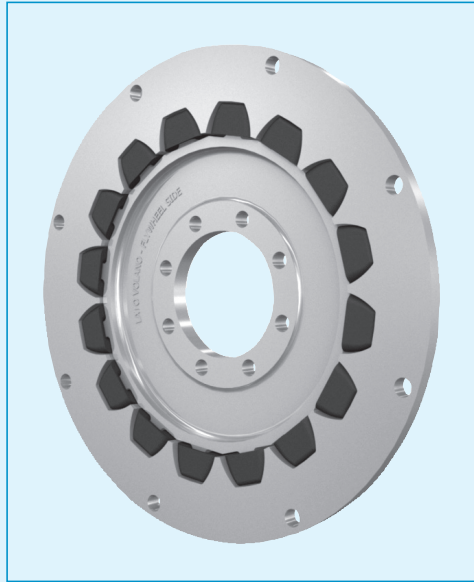
Size	Nr. of blocks	Max. rpm	Torque - Nm (70° shore)		
			Nominal torque T _{KN}	Max. torque T _{Kmax}	Continuous vibratory torque T _{Kw} (10 Hz) ²⁾
6S-7S-8S	12	4500	310	710	155
10S-10SS	16	4000	560	1370	280
11S	20	3500	860	2150	430
11D	20	3300	2060	6530	1030
14S	28	2800	1690	4220	845
14D	26	2800	3490	11040	1745
18D	32	2400	5300	16720	2650

Ambient temperature -40°C ÷ +120°C

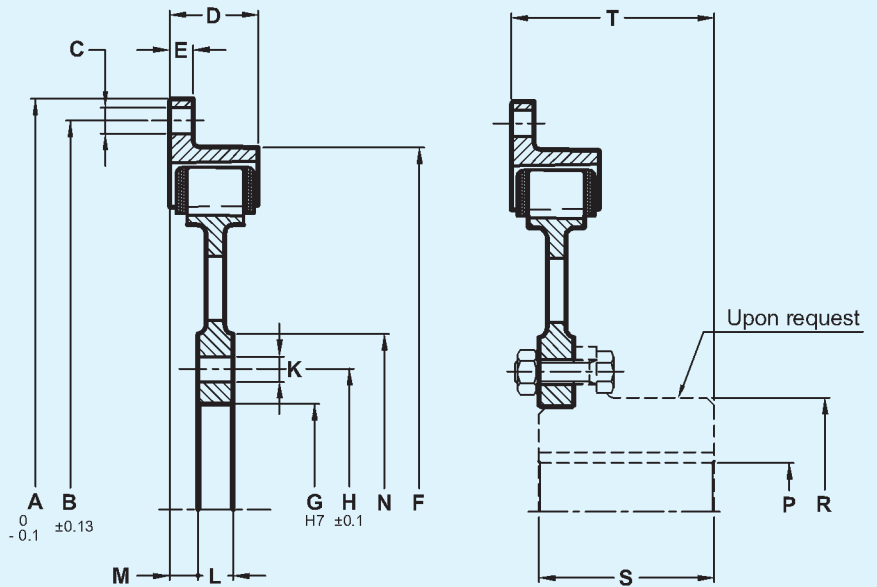
²⁾ For other frequency: $T_{Kw} \cdot \sqrt{\frac{10}{f_x}}$

Size	Static stiffness ±5% (Nm/rad)		J (Kgm ²)				Weight (Kg)		
			Drive	Driven		Drive+Driven		Flanged	With hub
	CT	CTdyn		Flanged	With hub	Flanged	With hub		
6S	20000	30000	0.006	0.005	0.006	0.010	0.011	1.4	2.6
7S	20000	30000	0.008	0.005	0.006	0.012	0.013	1.6	2.8
8S	20000	30000	0.011	0.005	0.006	0.016	0.016	1.8	3
10S	48000	72000	0.017	0.010	0.015	0.027	0.032	2.5	5.2
10SS	48000	72000	0.022	0.010	0.015	0.032	0.037	2.9	5.6
11S	93000	100000	0.035	0.025	0.035	0.060	0.070	3.3	8.2
11D	461000	691000	0.082	0.055	0.080	0.137	0.162	7	15.5
14S	206000	309000	0.180	0.110	0.135	0.290	0.315	7.3	16.8
14D	1010000	1515000	0.187	0.142	0.202	0.330	0.390	10.1	23.4
18D	1885000	2827000	0.652	0.177	0.652	0.830	1.305	16.6	50

Relative damping $\psi = 0,7263$
Resonance factor $V_R = 8,65$

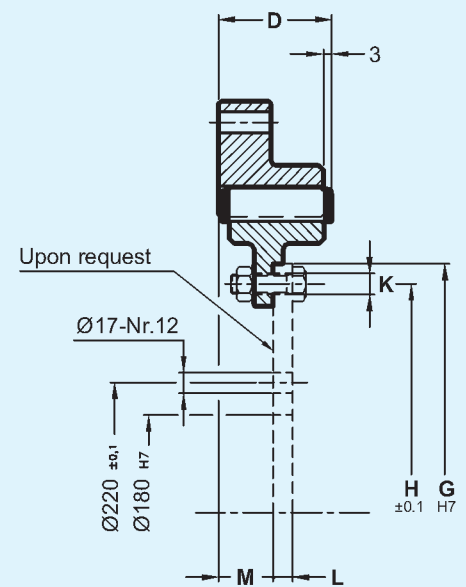
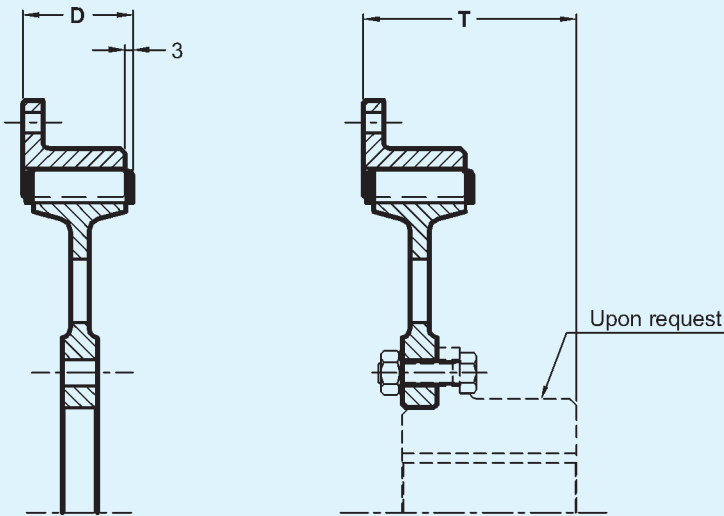


RBD WITH SINGLE RUBBER BLOCKS



RBD WITH DOUBLE RUBBER BLOCKS

RBD 18 D (WITH DOUBLE RUBBER BLOCKS)



Maximum parallel and angular misalignment 0.7 mm (T.I.R.)

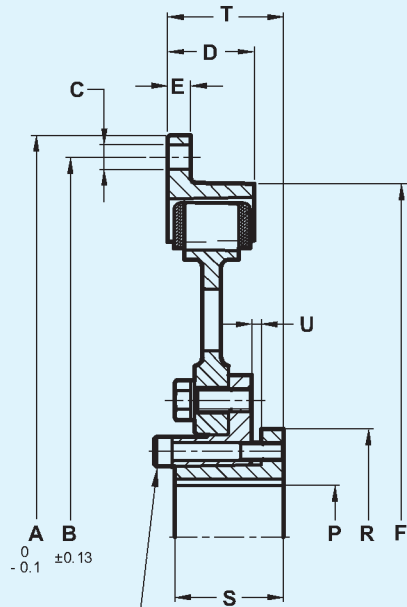
Size	A	B	C		D	E	F	G	H	K		L	M	N	P		R	S	T
			Nr.	dia.						Nr.	dia.				min	max			
6S	215.9	200	6	9	34	9	202	70.5	84	6	9	10	12	100	20	42	65	50	61
7S	241.3	222.2	8																
8S	263.525	244.5	6																
10S	285 f8	265	8	11	34	34	285	82	101.5	8	11	12	11	120	30	50	78	65	76
10SS	314.325	295.3				10													
11S	352.425	333.4	8	11	38	10	310	101	120	12	11	15	12	150	30	65	98	75	87
11D					70	67	352.42	120	150				15	180	45	90	128	90	102
14S	466.725	438.2	8	13.5	41	41	466.72	120	150	12	13	15	13	180	45	90	128	90	100
14D					70	13	406	150	180				18	27	210	50	100	148	100
18D	571.5	542.9	6	17	70	32.5	490	368.3	342.9	16	13	12	34	-	-	-	-	-	-

• Possible with version of 16 bolts; 8 shrouded and 8 exposed.

DIMENSIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

RBD COUPLINGS WITH QD

RBD-QD WITH SINGLE RUBBER BLOCKS



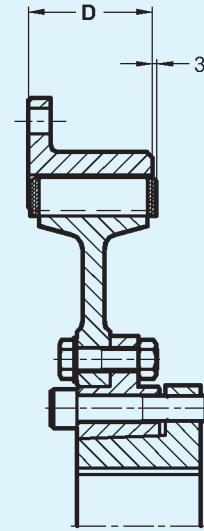
BLOCKING SCREW

Maximum parallel and angular misalignment 0.7 mm (T.I.R.)

The hub with conical locking coupling (QD) allows:

- ease of assembly
- high torque transmission
- quick disassembly without using special tools
- positive contact between locking hub and shaft eliminates contact fretting

RBD-QD WITH DOUBLE RUBBER BLOCKS



Size	Bush	A	B	C		D	E	F	P				R	S	T	U	Bolt Material 8.8											
				Nr.	dia.				min	max *	max **	max ***					Nr.	dimension	Locking torque (Nm)									
6S-QD	SH	215.9	200	6	9	34	9	202	10	35	38	42	68.3	31.5	46.5	3	3	M8x35	18									
7S-QD		241.3	222.2	8																								
8S-QD		263.525	244.5	6																11								
10S-QD	SDS	285 ^{f8}	265	8	11	34	34 ^{+0.34} _{-0.10}	285	13	42	45	50	81	33.5	47.5	3	3	M8x35	24									
10SS-QD		314.325	295.3																	10	255							
11S-QD	SK	352.425	333.4	8	11	38	10	310	13	55	60	65	98.5	47.5	56	3	3	M10x50	40									
11D-QD	SF						70	67										352.42	13	60	65	75	117.5	51	63/90	4	M12x55	75
14S-QD	SF						41	41										466.72	13	60	65	75	117.5	51	61	3	M12x55	75
14D-QD	E	466.725	438.2	8	13.5	70	13	406	22.5	75	80	90	152.4	66.5	93	3	4	M14x70	120									
18D-QD	J						70	32.5										490	76.2	100	105	120	184.2	117.5	141.5	8	4	M16x120

* max with keyway ISO 773

** max with reduced keyway DIN 6885/2

*** max without keyway

• Possible with version of 16 bolts; 8 shrouded and 8 exposed

DIMENSIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

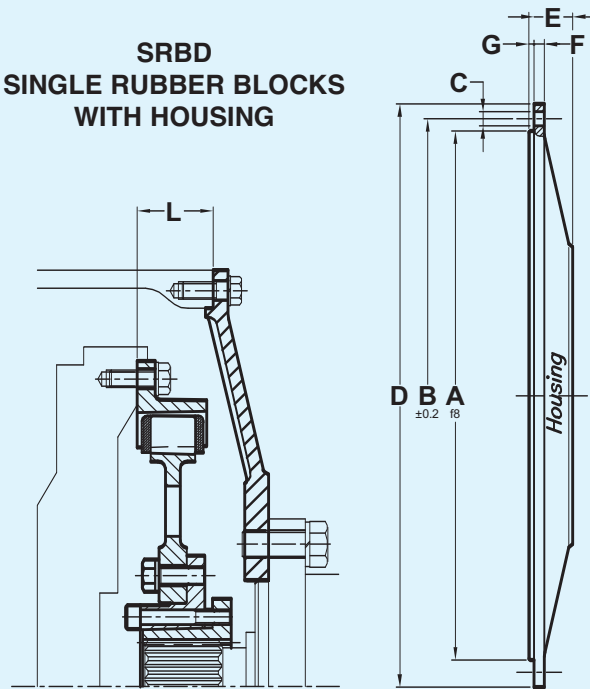
SRBD Single pump drive

The Single pump drive is a whole kit that includes all the components to connect a Diesel engine to a pump;

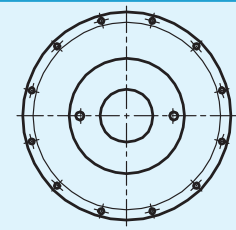
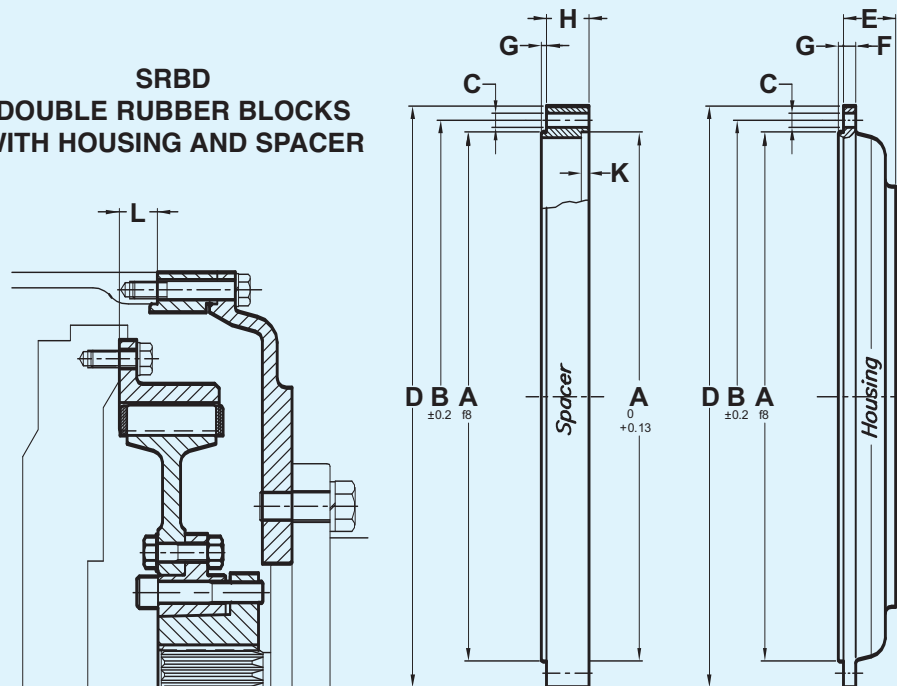
Components are:

- RBD coupling
- QD bushing (machined)
- SAE housing with inch threaded holes

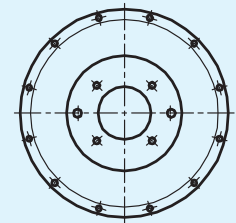
SRBD SINGLE RUBBER BLOCKS WITH HOUSING



SRBD DOUBLE RUBBER BLOCKS WITH HOUSING AND SPACER



2 HOLES (SAE A)



6 HOLES

The internal flanging of housings is suitable for SAE pumps with 2 or 4 holes

Flywheel SAE J620	RBD	L
6 1/2"	6S	30.2
7 1/2"	7S	
8"	8S	62
10"	10SS	53.8
11 1/2"	11S - 11D	39.6
14"	14S - 14D	25.4
18"	18D	15.7

HOUSING FOR FLYWHEEL SAE J617																	
SAE	A	B	C		D	E	F	G max	H	K min	WEIGHT (Housing) kg			WEIGHT (Spacer) kg			
			Nr.	Dia.													
5	314.32	333.37	8	11	356	30	8	4	/	/	16,8			/			
4	361.95	381.00	12		404	12	30		8	16	/	/	10	12,7		/	
3	409.57	428.62			451	12	30	45	12	28	40	8	13	14	15,1	7,2	10,4
2	447.67	466.72	489		50	12	5	21		8		21,7			5,9		
1	511.17	530.22	12	12	552	50	12	21	35	40	9	27			7,1	12,1	14

DIMENSIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

SRBD SINGLE PUMP DRIVES

SAE SINGLE PUMP DRIVE ASSEMBLY (ELAS)								
Engine Housing SAE J617 & Flywheel SAE J620 Pump SAE J744		5-6 1/2" RBD 6S TkN 310 Nm	4-6 1/2" RBD 6S TkN 310 Nm	5-7 1/2" RBD 7S TkN 310 Nm	4-7 1/2" RBD 7S TkN 310 Nm	4-8" RBD 8S TkN 310 Nm	3-8" RBD 8S TkN 310 Nm	4-10" RBD 10SS TkN 560 Nm
SAE A 9T 16/32 2 bolts	B.O.M.	ALA3636ABC	ALA3636ABD	ALB3637ABC	ALB3637ABD			
SAE B 13T 16/32 2-4 bolts	B.O.M.	ALA3636ACE	ALA3636ACF	ALB3637ACE	ALB3637ACF	ALC3638AAA	ALC3638AAB	ALE3640AAA
SAE B-B 15T 16/32 2-4 bolts	B.O.M.	ALA3636ADE	ALA3636ADF	ALB3637ADE	ALB3637ADF	ALC3638ABA	ALC3638ABB	ALE3640ABA
SAE C 14T 12/24 2-4 bolts	B.O.M.					ALC3638ACC	ALC3638ACD	ALE3640ACC
SAE C-C 17T 12/24 2-4 bolts	B.O.M.					ALC3638ADC	ALC3638ADD	ALE3640ADC
SAE D 13T 8/16 2-4 bolts	B.O.M.							
SAE E 13T 8/16 2-4 bolts	B.O.M.							

SAE housings 2-4 bolts supplied with 6 hole with six plastic industrial plugs.

SINGLE PUMP DRIVE WITH DIN 5480 SPLINE ASSEMBLY								
Engine Housing SAE J617 & Flywheel SAE J620 Pump DIN 5480 spline shaft		4-10" RBD 10SS TkN 560 Nm	3-10" RBD 10SS TkN 560 Nm	3-11 1/2" RBD 11S TkN 860 Nm	2-11 1/2" RBD 11S TkN 860 Nm			
N30x2x14x9H SAE C 2-4 bolts	B.O.M.	ALE3640AEC	ALE3640AED					
N35x2x16x9H SAE C 2-4 bolts	B.O.M.	ALE3640AFC	ALE3640AFD	ALF3641AFB	ALF3641BFC			
N35x2x16x9H SAE D 2-4 bolts	B.O.M.		ALE3640AFE	ALF3641AFE	ALF3641BFF			
N40x2x18x9H SAE C 2-4 bolts	B.O.M.	ALE3640AGC	ALE3640AGD	ALF3641AGB	ALF3641BGC			
N40x2x18x9H SAE D 2-4 bolts	B.O.M.		ALE3640AGE	ALF3641AGE	ALF3641BGF			
N45x2x21x9H SAE D 2-4 bolts	B.O.M.			ALF3641AHE	ALF3641BHF			
N50x2x24x9H SAE D 2-4 bolts	B.O.M.			ALF3641AKE	ALF3641BKF			
N50x2x24x9H SAE E 2-4 bolts	B.O.M.			ALF3641BKH	ALF3641BKK			
N55x2x26x9H SAE D 2-4 bolts	B.O.M.							
N55x2x26x9H SAE E 2-4 bolts	B.O.M.							

SAE housings 2-4 bolts supplied with 6 hole with six plastic industrial plugs.

STIC COUPLING+MACHINED QD BUSHING+HOUSING+SPACER)								
3-10" RBD 10SS TkN 560 Nm	3-11 1/2" RBD 11S TkN 860 Nm	2-11 1/2" RBD 11S TkN 860 Nm	1-11 1/2" RBD 11S TkN 860 Nm	3-11 1/2" RBD 11D TkN 2060 Nm	2-11 1/2" RBD 11D TkN 2060 Nm	1-11 1/2" RBD 11D TkN 2060 Nm	1-14 1/2" RBD 14S TkN 1690 Nm	1-14 1/2" RBD 14D TkN 3490 Nm
ALE3640AAB	ALF3641AAA							
ALE3640ABB	ALF3641ABA							
ALE3640ACD	ALF3641ACB	ALF3641BCC	ALF3641BCD	ALF3642AAAA	ALF3642AABB	ALF3642AACC	ALI3643AAA	
ALE3640ADD	ALF3641ADB	ALF3641BDC	ALF3641BDD	ALF3642ABAA	ALF3642ABBB	ALF3642ABCC	ALI3643ABA	ALI3644AAAA
	ALF3641BEE	ALF3641BEF	ALF3641BEG	ALF3642ACDA	ALF3642ACEB	ALF3642ACFC	ALI3643ACB	ALI3644ABBA
	ALF3641BEH	ALF3641BEK	ALF3641BEL	ALF3642ACGD	ALF3642ACHB	ALF3642ACKC	ALI3643ACC	ALI3644ACCA

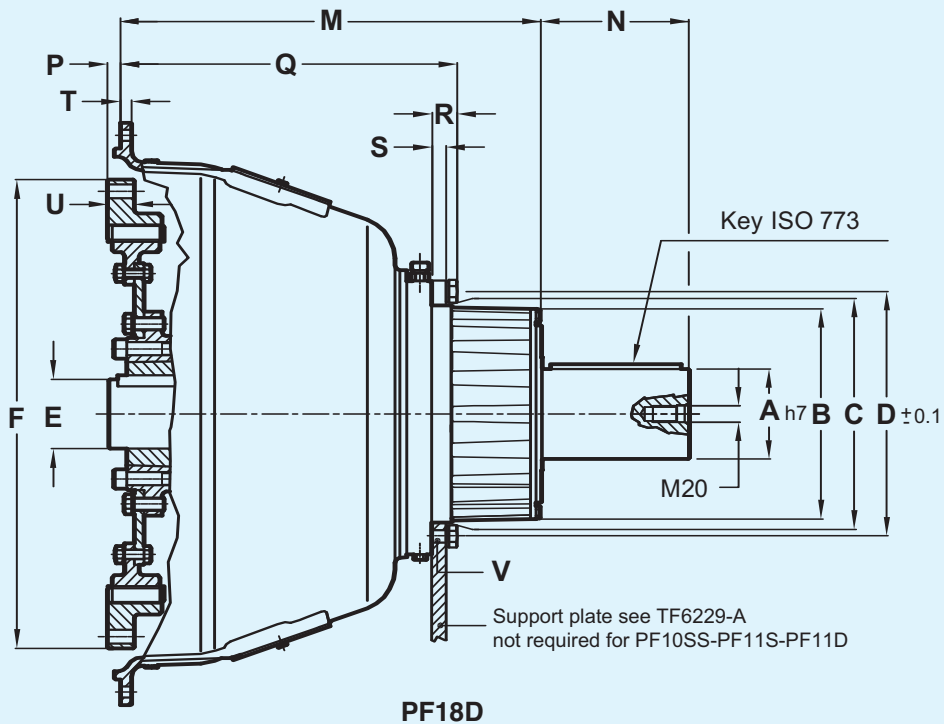
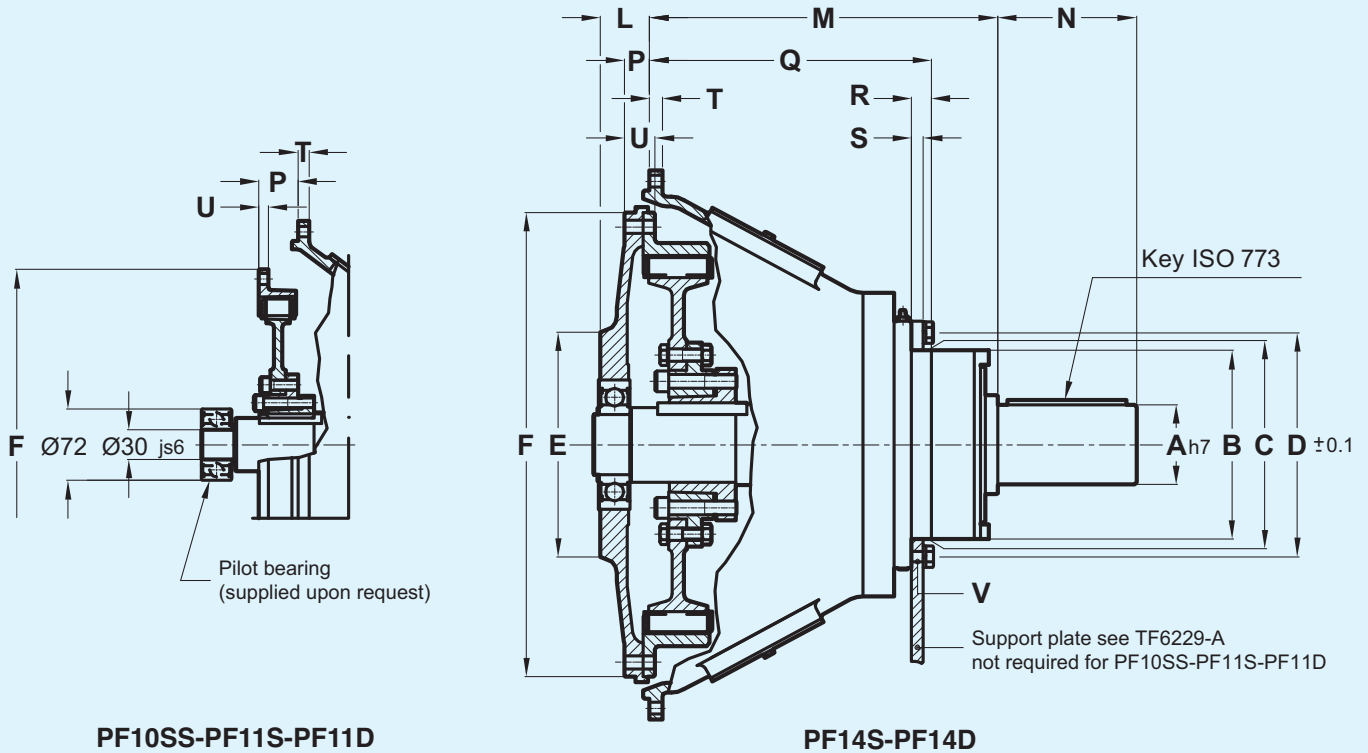
BLY (ELASTIC COUPLING+MACHINED QD BUSHING+HOUSING+SPACER)						
1-11 1/2" RBD 11S TkN 860 Nm	3-11 1/2" RBD 11D TkN 2060 Nm	2-11 1/2" RBD 11D TkN 2060 Nm	1-11 1/2" RBD 11D TkN 2060 Nm	1-14" RBD 14S TkN 1690 Nm	1-14" RBD 14D TkN 3490 Nm	
ALF3641BFD						
ALF3641BFG						
ALF3641BGD						
ALF3641BGG	ALF3642ADDA	ALF3642ADEB	ALF3642ADFC			
ALF3641BHG	ALF3642AEDA	ALF3642AEEB	ALF3642AEFC			
ALF3641BKG	ALF3642AFDA	ALF3642AFEB	ALF3642AFFC	ALI3643ADB	ALI3644ADBB	
ALF3641BKL	ALF3642AFGD	ALF3642AFHB	ALF3642AFKC	ALI3643ADC	ALI3644AECB	
				ALI3643AEB	ALI3644AFBB	
				ALI3643AEC	ALI3644AGCB	

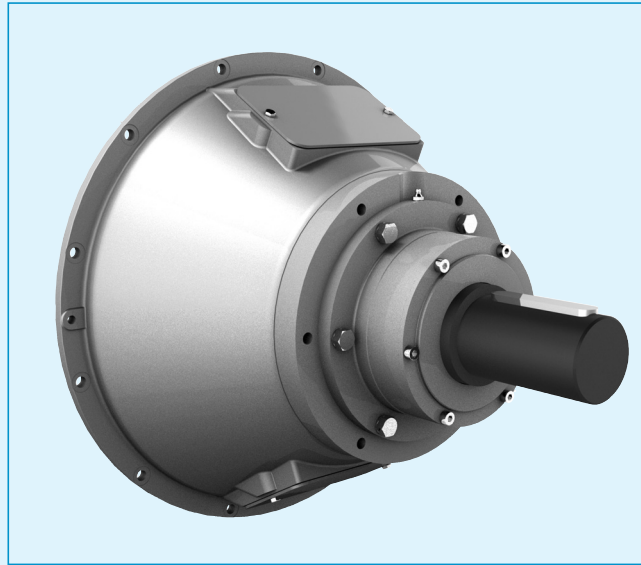
PF POWER TAKE OFFS WITH RBD COUPLINGS

RBD Power take offs

The PF-PTO is suitable for both in line and radial load applications.

The output shaft is supported by a heavy bearing designed to absorb the high shock loads generated by the transmitted power.



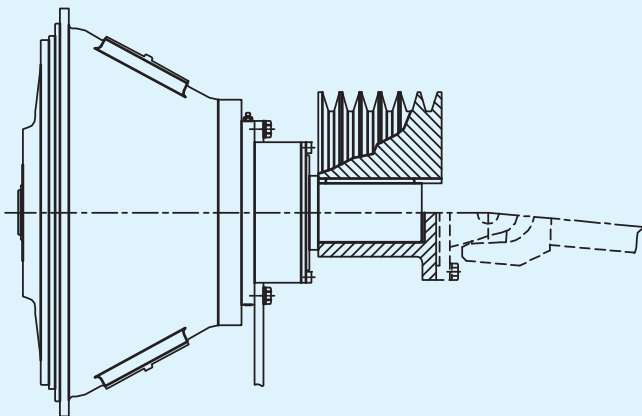


Size	SAE Housing	SAE Flywheel	A	B	C	D	E	F	L	M	N	P	Q	R	S	T	U	V	
																		Nr	Ø
PF10SS	4-3	10"	55	126	-	-	-	314.3	-	113	110	54	-	-	-	12	10	-	-
PF11S	3-2-1	11 1/2"	70	136				352.4		235	140	39.6				11			
PF11D			1-0	14"	80	189	190.5	225.4	226.5	466.7	50.8	350	140	25.4	263.7	23	12	12.7	31.7
PF14S	110	258			265	305	85	571.5	-	515	180	15.7	380	32	18	14	16		
PF14D																			
PF18D	0	18"	110	258	265	305	85	571.5	-	515	180	15.7	380	32	18	14	16		17

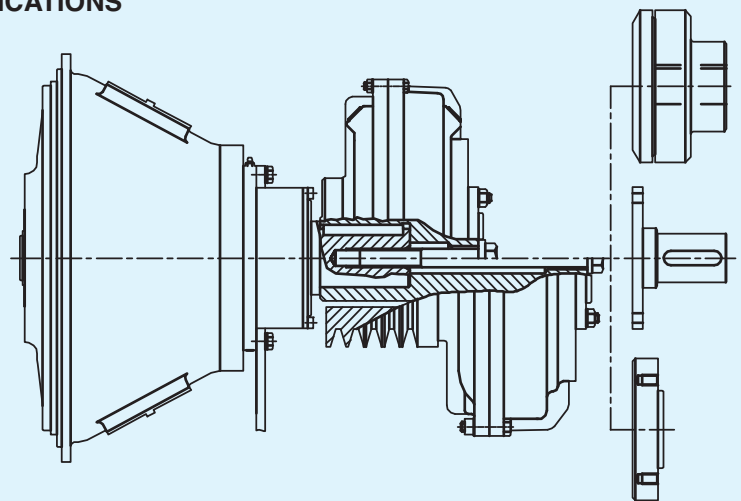
DIMENSIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

Size	Max weight kg
PF10SS	40
PF11S	53
PF11D	62
PF14S	111
PF14D	118
PF18D	266

APPLICATIONS



PF... WITH PULLEY OR
CARDAN SHAFT



PF... FLUID COUPLINGS KRG/D/U OR KSD

RBD - SRBD - POWER TAKE OFF: ATEX AND DATA SHEET

ATEX VERSIONS

It is possible to get a Transfluid RBD, SRBD, PF certified as equipment for intended use in hazardous zones according to directive 94/9/EC (Atex).

The selection must consider, in addition to the service factor S_t , a safety factor (Atex factor) $A_f=1.2$ to obtain the selection torque. With reference to selection table in pag. 1, nominal torque T_{KN} has to be higher than load torque $\times S_t \times A_f$:

$$T_{KN} > T_{LN} \times S_t \times A_f = T_{LN} \times S_{tAtex}$$

Certification can be provided for the following categories:

Ex II 3 G/D c T4 Surface (Non-mining) application

Ex II 2 G/D c T4 Surface (Non-mining) application

Ex I M2 c T4 Mining application

In case of inquiry for Atex products, you have to apply providing the application form TF6830 duly filled up.

APPLICATION DATA SHEET

Company:

Ref. person:

Address:

E-mail:

Project:

PRIME MOVER

Diesel engine

N° of cylinder:

in line

"V"

Installed power:

kW

Speed:

rpm

MAX torque:

Nm

Speed:

rpm

APPLICATION DATA

Flywheel size:

Housing size:

RBD / SRBD for pumps / compressors:

for generators:

Shaft end

spline dimension:

keyway dimension:

PF

with fluid cplg

with pulley

with cardan shaft

with flex cplg

Dp: mm

N° and type of grooves:

cardan type:

Weight of pump/s:

kg

Center of gravity, distance from flange (SRBD):

mm

Inertia:

kgm²

Absorbed power:

kW

Speed:

rpm

AMBIENT CONDITIONS

Ambient type:

Indoor

Outdoor

Marine

Sea level: m

Min temperature: °C

Max temperature: °C

Dust level:

low

medium

high

Aggressive agents (please list if any):

Explosive ambient in conformity with:

Atex Ex II 3 G/D c T4 Group II - Surface (Non-mining)

Category 3 Temperature T4 (135°C)

Atex Ex II 2 G/D c T4 Group II - Surface (Non-mining)

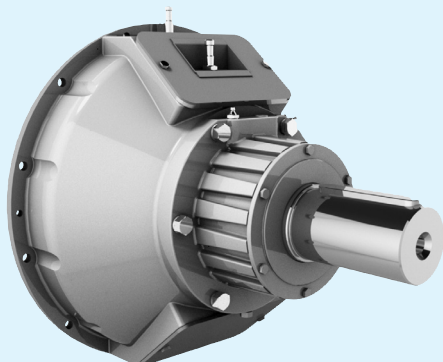
Category 2 Temperature T4 (135°C)

Atex Ex I M2 c T4 Group I - Mining

Category M2 Temperature T4 (135°C)

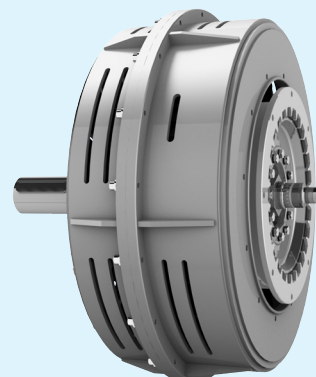
HF SERIES - OIL OPERATED POWER TAKE OFF

Up to 800 kW



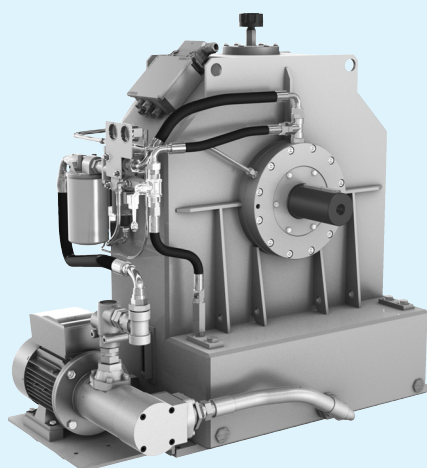
KFBD - FLUID COUPLING PTO

For internal combustion engines, up to 500 kW



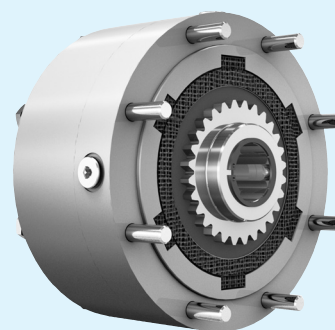
KPTO - FLUID COUPLING

For internal combustion engines, up to 1700 kW



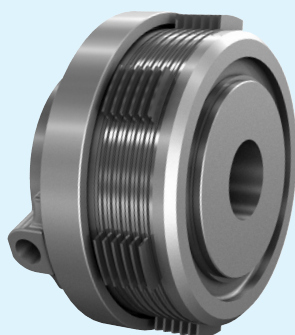
SL - HYDRAULIC BRAKE

Up to 9000 Nm



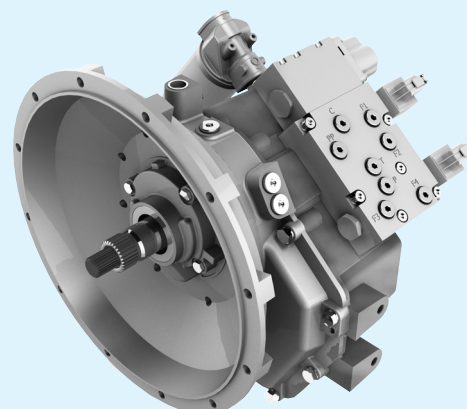
SH-SHC - HYDRAULIC CLUTCH

Up to 2500 Nm



POWER SHIFT TRANSMISSION


Electric selector, up to 95 kW



EUROPE

AUSTRIA


ASC GMBH
4470 Enns

 **AUSTRIA (Diesel appl.)**
ESCO ANTRIEBSTECHNIK GMBH
53831 Troisdorf

 **BELGIUM**
ESCOPOWER N.V.
1480 Saintes

CZECH REPUBLIC
TESPO ENGINEERING s.r.o.
602 00 Brno

 **CZECH REPUBLIC (Diesel appl.)**
ESCO ANTRIEBSTECHNIK GMBH
53831 Troisdorf

 **DENMARK (Electric appl.)**
JENS S. TRANSMISSIONER A/S
DK 2635 ISHØJ

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
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