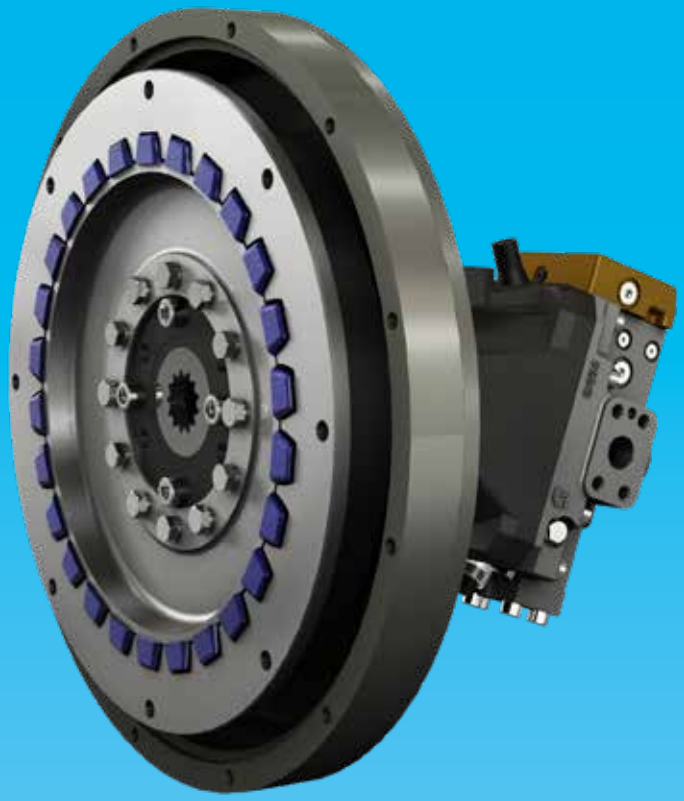
TRANSFLUID

drive with us

CERTIFIED ISO 9001

TRANSFLUID®

industrial & marine



RBD elastic couplings
SRBD single pump drive
PF pto

DESCRIPTION

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.

CONFIGURATION

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

TECHNICAL FEATURES

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)]

$T_{KN} > T_{LN} \bullet S_t$ (T_{LN} = load torque; St = 1.3)

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

$T_{KNAtex} > T_{LN} \bullet S_{tAtex}$ (T_{LN} = 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}	Continuos 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: $TKW \bullet \sqrt{\frac{10}{fx}}$

Size	Static stiffness ±5% (Nm/rad)		J (kgm²)					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	ψ = 0,7263								
Resonance factor	VR = 8,65								

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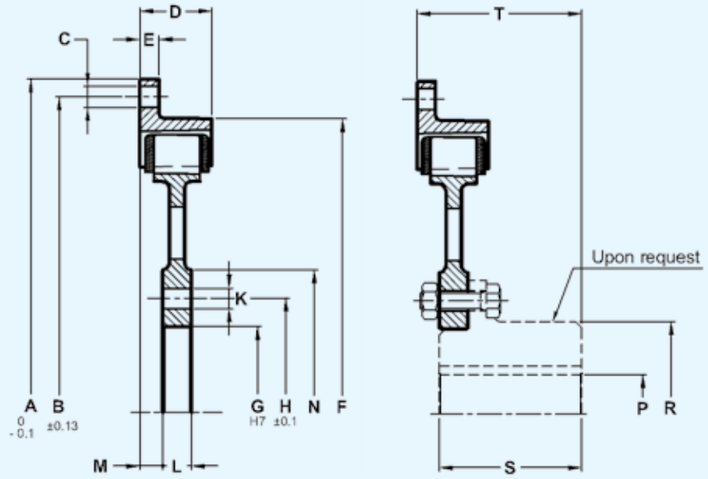
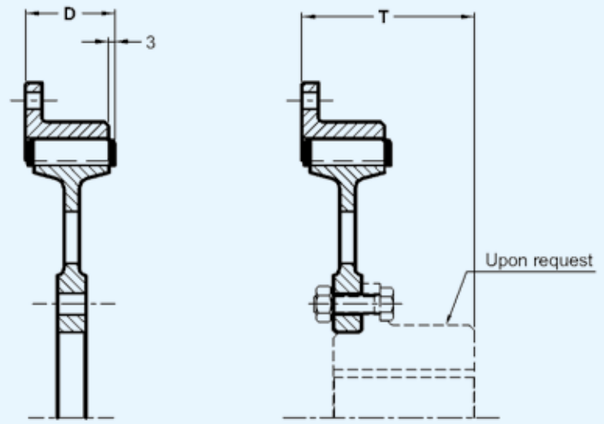
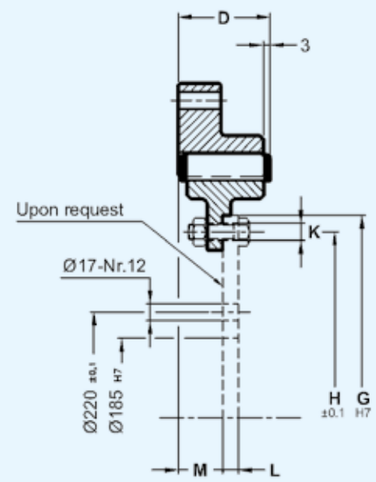
RBD WITH SINGLE RUBBER BLOCKS



RBD WITH DOUBLE RUBBER BLOCKS



RBD 18D 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	11															
10S	258 f8	265	8	11	34	•34 10	285	82	101.5	8	11	12	11	120	30	50	78	65	76
10SS	314.325	295.3				10	255												
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		13		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	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

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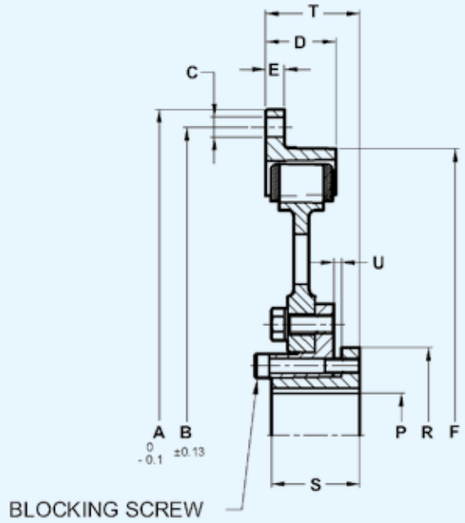
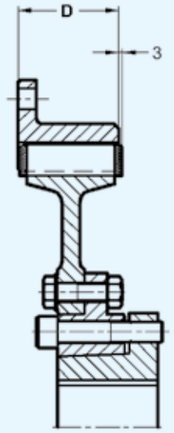
RBD-QD WITH SINGLE RUBBER BLOCKS



RBD-QD WITH DOUBLE RUBBER BLOCKS



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

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 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	70	117.5	51	63/90		4	M12x55	75
14S-QD	SF	466.725	438.2	8	13.5	41	41	466.72	13	60	65	70	117.5	51	61	3	4	M12x55	75
14D-QD	E					70	13	406	22.5	75	80	90	152.4	66.5	93			M14x70	120
18D-QD	J	571.5	542.9	6	17	70	32.5	490	76.2	100	105	120	184.2	117.5	141.5	8	4	M16x120	165

* 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

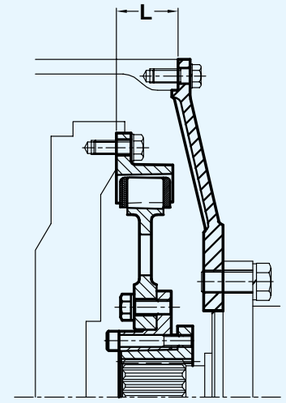
DIMENSIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

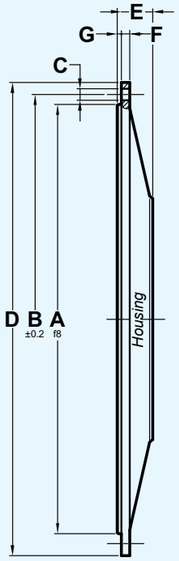
SRBD Single pump drive

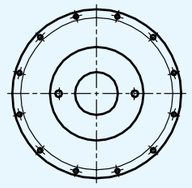
The Single pump drive is a whole kit that includes all the components to connect a Diesel engine to a pump.

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

SRBD
SINGLE RUBBER BLOCKS
WITH HOUSING

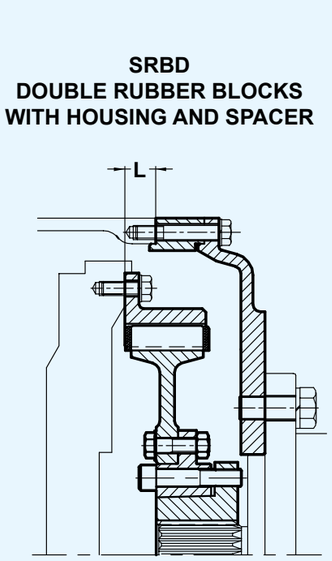


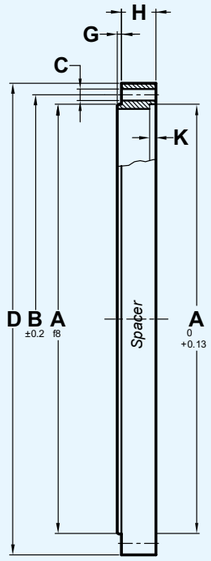


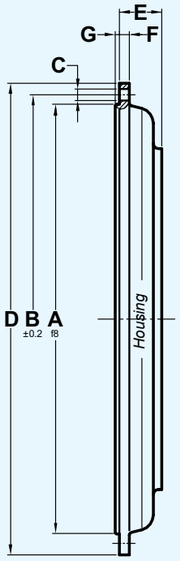


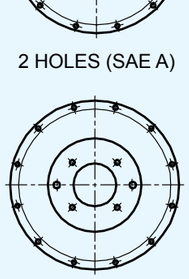
2 HOLES (SAE A)

SRBD
DOUBLE RUBBER BLOCKS
WITH HOUSING AND SPACER









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

Flywheel SAE J620	RBD	L
6½"	6S	30.2
7½"	7S	
8"	8S	62
10"	10SS	53.8
11½"	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		5	21	8	21.7	5.9
1	511.17	530.22		12	552				21 35 40	9	27	7.1 12.1 14

DIMENSIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

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SRBD SINGLE PUMP DRIVES

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SAE SINGLE PUMP DRIVE ASSEMBLY (ELASTIC COUPLING+MACHINED QD BUSHING+HOUSING+SPACER)																	
Engine Housing SAE J617 & Flywheel SAE J620 Pump SAE J744		5-6 ½" RBD 6S TkN 310 Nm	4-6 ½" RBD 6S TkN 310 Nm	5-7 ½" RBD 7S TkN 310 Nm	4-7 ½" 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	3-10" RBD 10SS TkN 560 Nm	3-11½" RBD 11S TkN 860 Nm	2-11 ½" RBD 11S TkN 860 Nm	1-11½" RBD 11S TkN 860 Nm	3-11 ½" RBD 11D TkN 2060 Nm	2-11 ½" RBD 11D TkN 2060 Nm	1-11 ½" RBD 11D TkN 2060 Nm	1-14" RBD 14S TkN 1690 Nm	1-14" RBD 14D TkN 3490 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	ALE3640AAB	ALF3641AAA							
SAE B-B 15T 16/32 2-4 bolts	B.O.M	ALA3636ADE	ALA3636ADF	ALB3637ADE	ALB3637ADF	ALC3638ABA	ALC3638ABB	ALE3640ABA	ALE3640ABB	ALF3641ABA							
SAE C 14T 12/24 2-4 bolts	B.O.M					ALC3638ACC	ALC3638ACD	ALE3640ACC	ALE3640ACD	ALF3641ACB	ALF3641BCC	ALF3641BCD	ALF3642AAAA	ALF3642AABB	ALF3642AACC	ALI3643AAA	
SAE C-C 17T 12/24 2-4 bolts	B.O.M					ALC3638ADC	ALC3638ADD	ALE3640ADC	ALE3640ADD	ALF3641ADB	ALF3641BDC	ALF3641BDD	ALF3642ABAA	ALF3642ABBB	ALF3642ABCC	ALI3643ABA	ALI3644AAAA
SAE D 13T 8/16 2-4 bolts	B.O.M									ALF3641BEE	ALF3641BEF	ALF3641BEG	ALF3642ACDA	ALF3642ACEB	ALF3642ACFC	ALI3643ACB	ALI3644ABBA
SAE E 13T 8/16 2-4 bolts	B.O.M									ALF3641BEH	ALF3641BEK	ALF3641BEL	ALF3642ACGD	ALF3642ACHB	ALF3642ACKC	ALI3643ACC	ALI3644ACCA

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

SINGLE PUMP DRIVE WITH DIN 5480 SPLINE ASSEMBLY (EL ASTIC COUPLING+MACHINED QD BUSHING+HOUSING+SPACER)											
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 ½" RBD 11S TkN 860 Nm	2-11 ½" RBD 11S TkN 860 Nm	1-11 ½" RBD 11S TkN 860 Nm	3-11 ½" RBD 11D TkN 2060 Nm	2-11 ½" RBD 11D TkN 2060 Nm	1-11 ½" RBD 11D TkN 2060 Nm	1-14" RBD 14S TkN 1690 Nm	1-14" RBD 14D TkN 3490 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	ALF3641BFD					
N35x2x16x9H SAE D 2-4 bolts	B.O.M		ALE3640AFE	ALF3641AFE	ALF3641BFF	ALF3641BFG					
N40x2x18x9H SAE C 2-4 bolts	B.O.M	ALE3640AGC	ALE3640AGD	ALF3641AGB	ALF3641BGC	ALF3641BGD					
N40x2x18x9H SAE D 2-4 bolts	B.O.M		ALE3640AGE	ALF3641AGE	ALF3641BGF	ALF3641BGG	ALF3642ADDA	ALF3642ADEB	ALF3642ADFC		
N45x2x21x9H SAE D 2-4 bolts	B.O.M			ALF3641AHE	ALF3641BHF	ALF3641BHG	ALF3642AEDA	ALF3642AEEB	ALF3642AEFC		
N50x2x24x9H SAE D 2-4 bolts	B.O.M			ALF3641AKE	ALF3641BKF	ALF3641BKG	ALF3642AFDA	ALF3642AFEB	ALF3642AFFC	ALI3643ADB	ALI3644ADBB
N50x2x24x9H SAE E 2-4 bolts	B.O.M			ALF3641BKH	ALF3641BKK	ALF3641BKL	ALF3642AFGD	ALF3642AFHB	ALF3642AFKC	ALI3643ADC	ALI3644AECB
N55x2x26x9H SAE D 2-4 bolts	B.O.M									ALI3643AEB	ALI3644AFBB
N55x2x26x9H SAE E 2-4 bolts	B.O.M									ALI3643AEC	ALI3644AGCB

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

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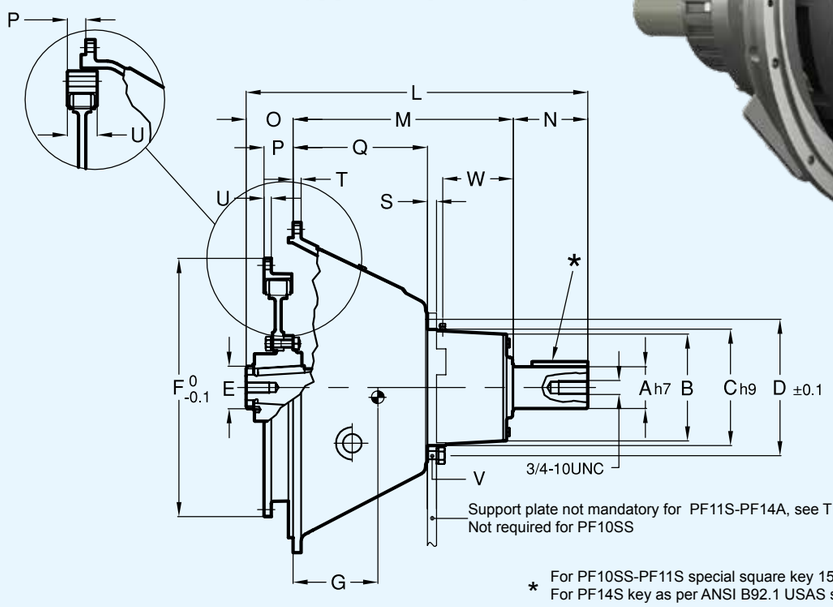
RBD POWER TAKE OFF

The PT - 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 tensmitted power.

For permissible radial loads apply Transfluid.

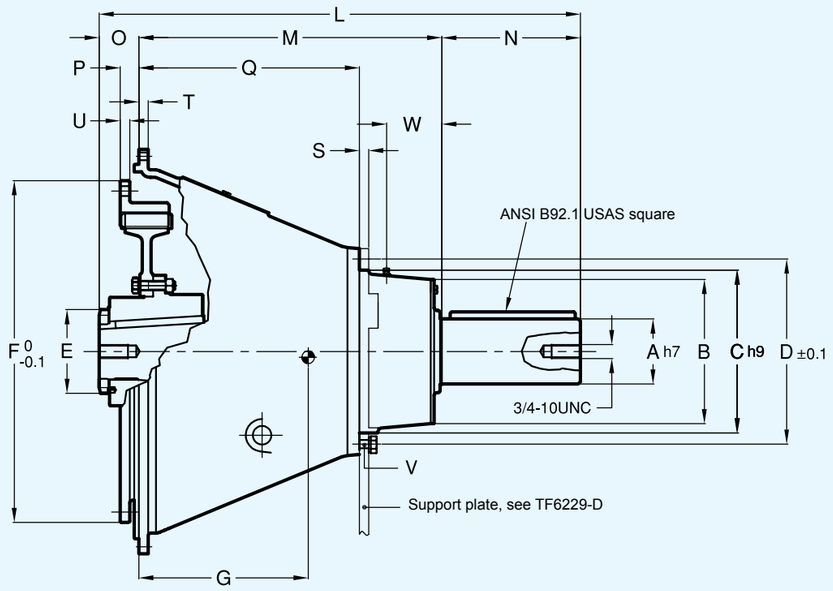
PF10SS - PF11S - PF14S



Support plate not mandatory for PF11S-PF14A, see TF6229-D
Not required for PF10SS

* For PF10SS-PF11S special square key 15.88x15.88x76.2
For PF14S key as per ANSI B92.1 USAS square

PF14D



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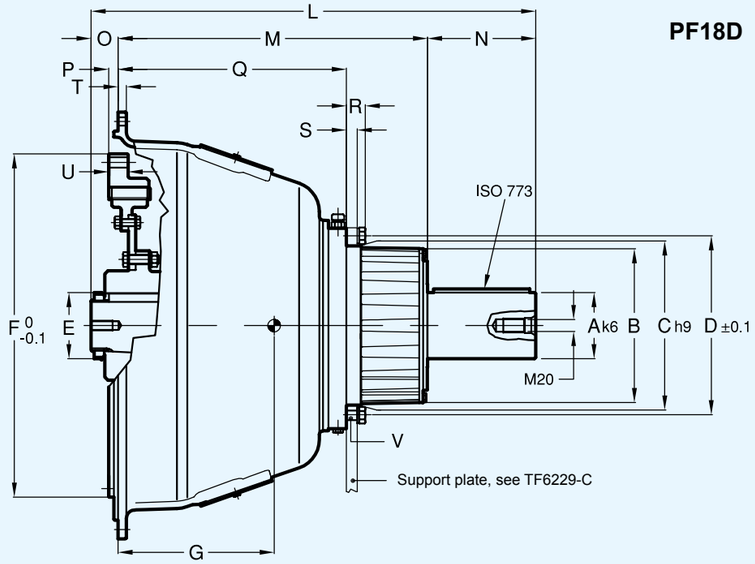
PF18D

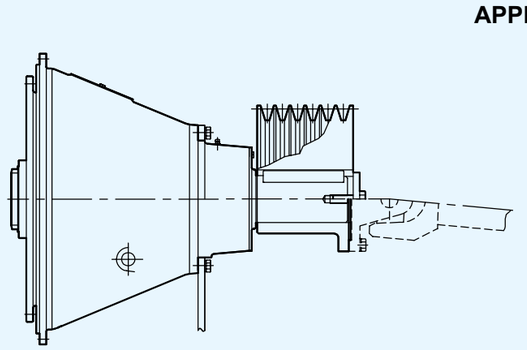


Size	SAE Housing size	SAE Flywheel size	A	B	C	D	E	F	L	M	N	O	P	Q	R	S	T	U	V Nr.	V Dia.	W	G CENTER OF GRAVITY
PF10SS	4	10"	57.15	146.05		-	58	314.325	415.93	251.6	96.84	67.49	53.8	159.37	-	9.53	11.11	10	-	-	66.83	107
PF11S	3	11½"	57.15	146.05	158.75	184.15	58	352.425	466.17	300.66	101.6	63.91	39.6	183.36	-	12.7	11.11	10	6	10.5	96.28	120
PF14S	1	14"	76.2	171.45	190.5	222.25	85	466.725	530.71	348.36	128.27	54.08	25.4	250.83	-	12.7	12.7	41	6	13.5	65.88	146
PF14D			88.9	196.85	222.25	251.62	85		656.83	413.46	189.31	54.06		301.14	-	12.7	12.7	13	6	13.5	75.41	186
PF18D	0	18"	110	258	265	305	85	571.5	740	515	180	45	17.7	380	32	18	14	32.5	6	17	-	210

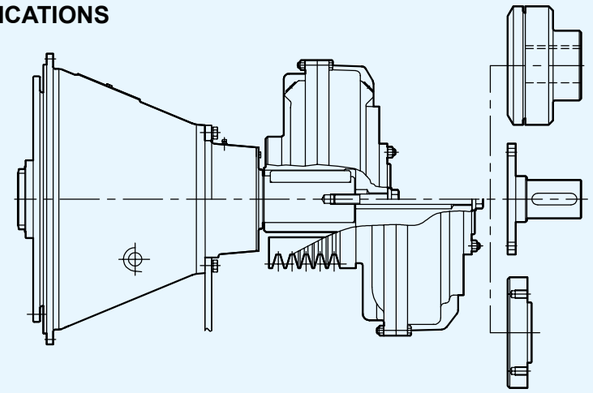
DIMENSIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

Size	Max speed rpm	Nominal torque Nm	Weight kg
PF10SS	4000	560	41
PF11S	3500	860	52
PF14S	2800	1690	85
PF14D	2800	3490	122
PF18D	2400	5300	217

APPLICATIONS



PF...WITH PULLEY or CARDAN SHAFT



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

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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) Af =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 x S_t x 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:

Ɛ x II 3 G/D c T4 Surface (Non-mining) application
Ɛ x II 2 G/D c T4 Surface (Non-mining) application
Ɛ x 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 / compressor
☐ for generators:
Shaft end ☐ Spline dimension: ☐ Keyway dimension:

PF ☐ with fluid cplg
☐ with pulley Dp: mm N° and type of grooves
☐ with cardan shaft cardan type:
☐ with flex cplg

Weight of pump/s kg Center of gravity, distance from flange (SRBD): mm
Inertia: kgm^2
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 ε x II 3 G/D c T4**	Group II - Surface (Non-mining)	Category 3	Temperature T4 (135°C)
☐ **Atex Ɛ x II 2 G/D c T4**	Group II - Surface (Non-mining)	Category 2	Temperature T4 (135°C)
☐ **Atex Ɛ x I M2 c T4**	Group I - mining	Category M2	Temperature T4 (135°C)

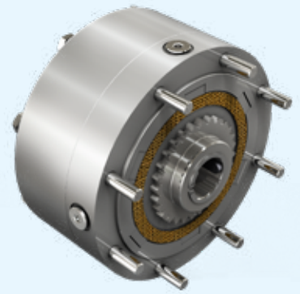
TRANSFLUID® industrial & marine

HF SERIES - OIL OPERATED POWER TAKE OFF
Up to 800 kW

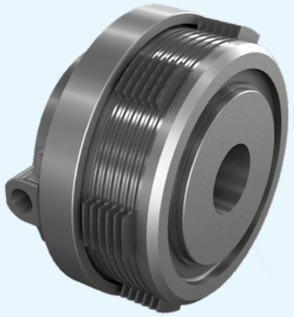
KFBD - FLUID COUPLING PTO
For internal combustion engines, up to 500 kW

KPTO - FLUID COUPLING
For internal combustion engines, up to 1700 kW

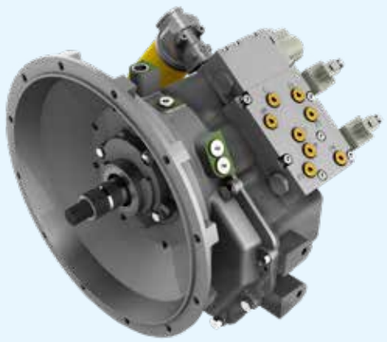
SL - HYDRAULIC BRAKE
Up to 9000 Nm



SH-SHC - HYDRAULIC CLUTCH
Up to 2500 Nm



POWER SHIFT TRANSMISSION
Electric selector, up to 95 kW



drive with us

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