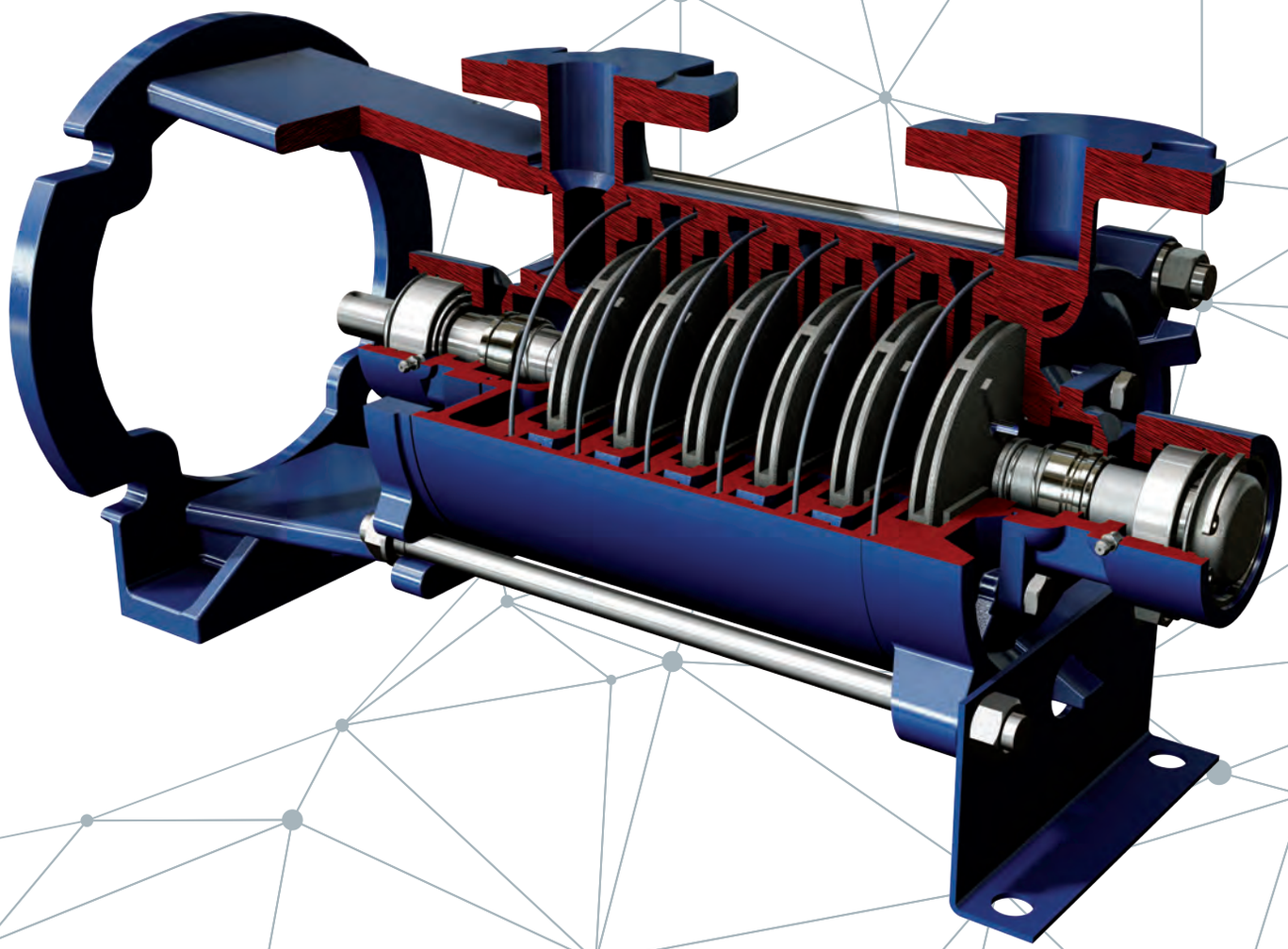
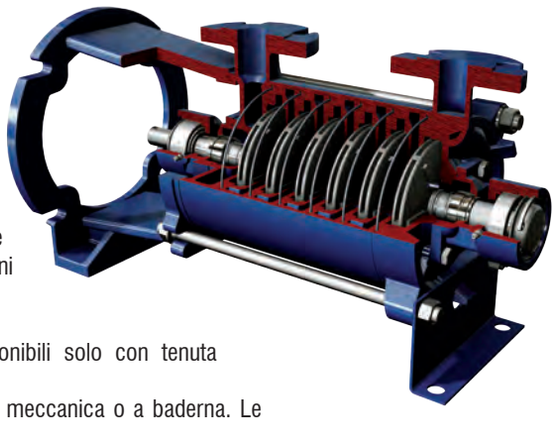
TS

CENTRIFUGA MULTISTADIO
MULTISTAGE CENTRIFUGAL



TS



TS

IMPIEGHI: Adatte al pompaggio di liquidi limpidi o leggermente impuri si prestano ad applicazioni in alimentazione di caldaie, gruppi antincendio, autoclavi, pompaggio idrocarburi, impianti di lavaggio a medie pressioni e ovunque siano necessarie pressioni elevate.

USE: *TS pumps are suitable for clean or slightly dirty liquids and are used for boilers feeding , fire fighting plants, autoclaves, water supply systems, washing plants, irrigation, to pump hydrocarbons and whenever high pressures are required.*

TENUTE: Le serie TS 31 - 32 sono disponibili solo con tenuta meccanica.
Le serie 40 - 50 sono disponibili con tenuta meccanica o a baderna. Le camere di raffreddamento sono fornite di serie.

SEALS: *TS 31- 32 range is only available with mechanical seal.*
TS 40 - 50 range is available both with mechanical seal or gland packing. Cooling chambers are supplied as standard equipment.

MATERIALI STANDARD: Corpi e diffusori in ghisa grigia EN 1561- GJL 25, Albero in AISI 420, Guarnizioni in EPDM, Tenute meccaniche in ceramica, silicio, o tungsteno a seconda delle pressioni. Baderne in GFO (PTFE + grafite), Bronzine in bronzo speciale a basso coefficiente di attrito.

STANDARD MATERIALS: *Casing and diffusers in cast iron EN 1561- GJL 25, Shaft in AISI 420, Gasket in EPDM, mechanical seals in ceramic, silicon carbide, or tungsten carbide according to the pumping pressure. GFO gland packing (PTFE + carbon), low friction bearing bushes in bronze.*

MATERIALI SPECIALI: Alberi in AISI 316, Bronzine in Rulon J, Tenute e guarnizioni in materiali diversi a seconda del prodotto pompato.

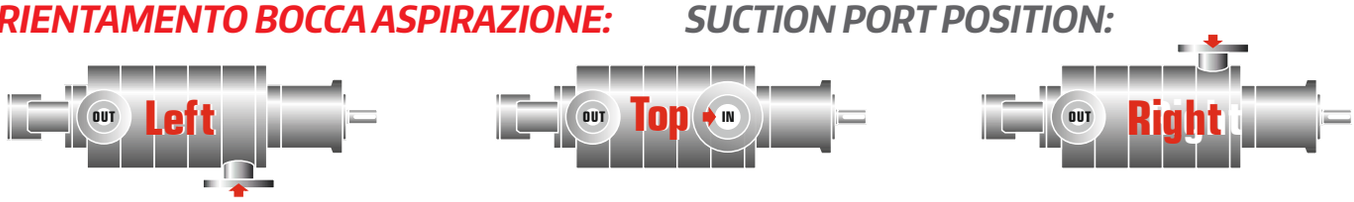
SPECIAL MATERIALS: *Shaft in AISI 316, Bearing bush in Rulon J, Seals and gaskets in different materials according to the pumped liquids.*

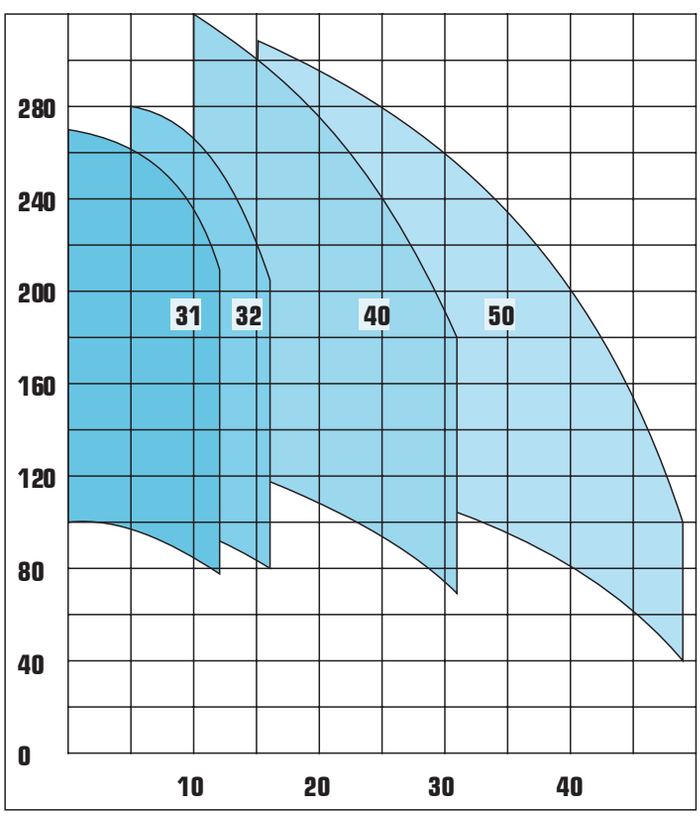
LIMITI DI IMPEGO:
Con materiali e tenute standard la temperatura massima di esercizio continuo è di 105°C. Con tenute diverse è possibile lavorare fino a 140°C di esercizio con punte fino a 150°C. Pressione massima in aspirazione 16 BAR. Pressione massima in mandata 40 BAR (variabile con la temperatura di lavoro)

WORKING LIMITS: *Max working temperature 105°C with standard materials. On demand, are available special seals and gaskets suitable for 140°C in continuous duty and max 150°C not continuous.Maximum suction pressure 16 BAR. Maximum discharge pressure 40 BAR (according to the working temperature).*

ORIENTAMENTO BOCCA ASPIRAZIONE:

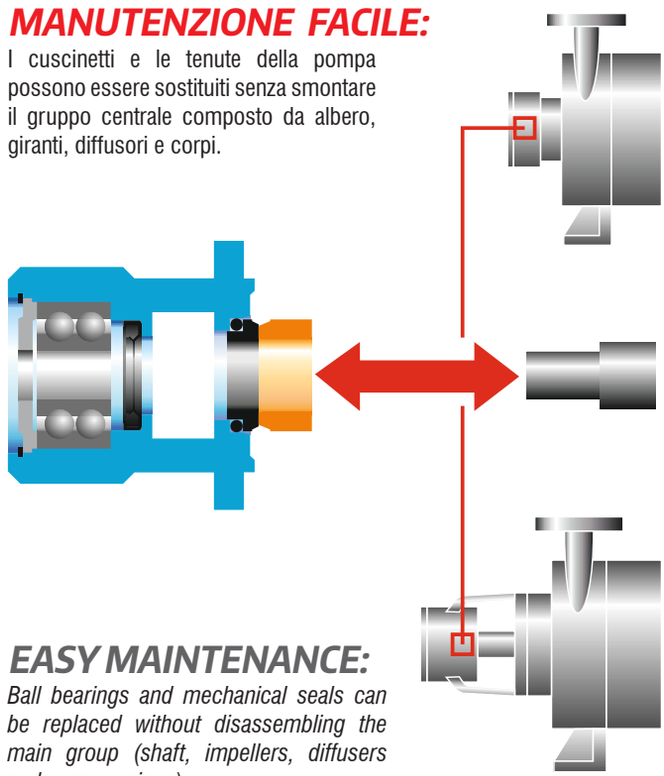
SUCTION PORT POSITION:





MANUTENZIONE FACILE:

I cuscinetti e le tenute della pompa possono essere sostituiti senza smontare il gruppo centrale composto da albero, giranti, diffusori e corpi.



EASY MAINTENANCE:

Ball bearings and mechanical seals can be replaced without disassembling the main group (shaft, impellers, diffusers and pump casings).

ESECUZIONI EXECUTIONS

TSB 31-32

BRONZINA - SU BASE

Versione a tenuta meccanica. Supportazione con cuscinetto a sfere e bronzina. Esecuzione con piedi di sostegno per accoppiamento a motori elettrici forma B3, motori a scoppio ecc... Orientamento bocche standard: mandata in alto, aspirazione a sinistra. Diverso a richiesta. Temperatura materiali standard. 105°C. A richiesta versione per 140°C in continuo.



BEARING BUSH - BASE PLATE

Mechanical seal execution. Bearing system with bearing bush and ball bearing. Execution with feet suitable for B3 electric motor, internal combustion engine etc... Standard ports position: discharge on the top, suction on the left side. Different positions on request. Max working temperature 105°C with standard materials. On demand, execution suitable for 140°C continuous duty.

TSKB 31-32

DOPPIO SUPPORTO - SU BASE

Versione a tenuta meccanica. Supportazione con cuscinetto a sfere lato aspirazione e mandata. Esecuzione con piedi di sostegno per accoppiamento a motori elettrici forma B3, motori a scoppio ecc... Orientamento bocche standard: mandata in alto, aspirazione a sinistra. Diverso a richiesta. Temperatura materiali standard. 105°C. A richiesta versione per 140°C in continuo.



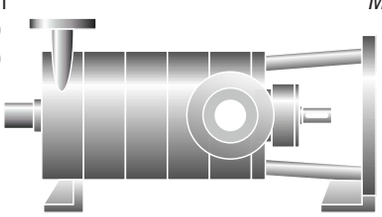
DOUBLE BEARING - BASE PLATE

Mechanical seal execution. Bearing system with ball bearings both on the suction and discharge side. Excution with feet suitable for B3 electric motor, internal combustion engine etc... Standard ports position: discharge on the top, suction on the left side. Different positions on demand. Max working temperature 105°C with standard materials. On request, execution suitable for 140°C continuous duty.

TSL 31-32

BRONZINA - LANTERNATA

Versione a tenuta meccanica. Supportazione con cuscinetto a sfere lato aspirazione e bronzina lato mandata. Esecuzione lanternata per accoppiamento a motori elettrici forma B5. Orientamento bocche standard: mandata in alto, aspirazione a sinistra. Diverso a richiesta. Temperatura materiali standard. 105°C. A richiesta versione per 140°C in continuo.



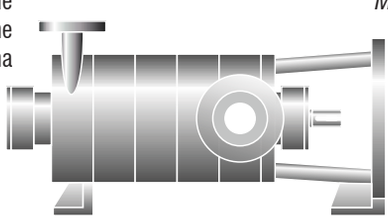
BEARING BUSH - LANTERN

Mechanical seal execution. Bearing system with bearing bush and ball bearing suction side. Execution with lantern suitable for flanged B5 electric motors. Standard ports position: discharge on the top, suction on the left side. Different positions on demand. Max working temperature 105°C with standard materials. On request, execution suitable for 140°C continuous duty.

TSKL 31-32

DOPPIO SUPPORTO - LANTERNATA

Versione a tenuta meccanica. Supportazione con due cuscinetti a sfere posti alle estremità. Esecuzione lanternata per accoppiamento a motori elettrici forma B5. Orientamento bocche standard: mandata in alto, aspirazione a sinistra. Diverso a richiesta. Temperatura massima in contiunuo 140°C. Temperatura materiali standard. 105°C; superiori a richiesta.



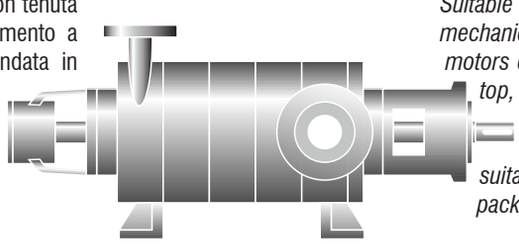
DOUBLE BEARING - LANTERN

Mechanical seal execution. Bearing system with ball bearings both in the suction and discharge side. Execution with lantern suitable for flanged B5 electric motors. Standard ports position: discharge on the top, suction on the left. Different positions on demand. Max working temperature 105°C with standard materials. On request, execution suitable for 140°C continuous duty.

TSKB 40-50

DOPPIO SUPPORTO - SU BASE

Disponibili 2 versioni: a baderna raffreddata e con tenuta meccanica. Esecuzione con piedi per accppiamento a motori elettrici B3. Orientamento bocche: mandata in alto, aspirazione a sinistra. Diverso a richiesta. Temperatura massima in contiunuo 140°C. Temperatura materiali standard. 105°C. Consigliato raffreddare la baderna oltre 120°C.



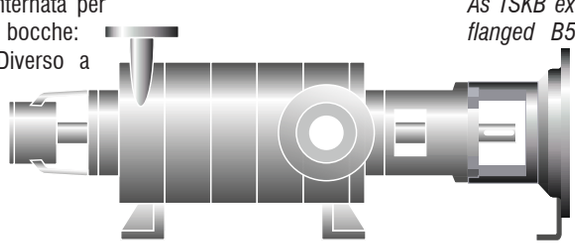
DOUBLE BEARING - BASE PLATE

Suitable for two versions: cooled gland packing or mechanical seal. Excution with feet suitable for B3 electric motors etc... Standard ports position: discharge on the top, suction on the left side. Different positions on request. Max working temperature 105°C with standard materials. On demand, execution suitable for 140°C continuous duty. Cool the gland-packing is recommended over 120°C.

TSKL 40-50

DOPPIO SUPPORTO - LANTERNATA

Come versione TSKB, ma in esecuzione lanternata per accoppiamento a motori B5. Orientamento bocche: mandata in alto, aspirazione a sinistra. Diverso a richiesta. Temperatura massima in contiunuo 140°C. Temperatura materiali standard. 105°C. Consigliato raffreddare la baderna oltre 120°C.



DOUBLE BEARING - LANTERN

As TSKB execution. but with lantern to be coupled with flanged B5 motors. Standard ports position: discharge on the top, suction on the left side. Different positions on demand. Max working temperature 105°C with standard materials. On request, execution for 140°C continuous duty. Seal cooling is recommended over 120°C

Sigla identificazione — *Identification mark*

IT

TSKB 31/6 4A75 M136 1
❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

EN

❶ **Modello pompa**
TS Pompa supportata con cuscinetto e bronzina
TSK pompa supportata con due cuscinetti alle estremità

❶ ***Pump model***
TS *Pump supported by ball bearing and bearing bush*
TSK *pump supported end by two ball bearings*

❷ **Esecuzione pompa**
B pompa asse nudo su base
L pompa lanternata

❷ ***Pump execution***
B *bare shaft pump on base*
L *Lantern bracket pump*

❸ **Grandezza pompa**

❸ ***Pump size***

❹ **Numero di giranti**

❹ ***Number of impellers***

❺ **Polarità motore**
2 = motore elettrico a 2 poli
4 = motore elettrico a 4 poli
6 = motore elettrico a 6 poli
8 = motore elettrico a 8 poli

❺ ***Motor polarity***
2 = 2 poles electric motor
4 = 4 poles electric motor
6 = 6 poles electric motor
8 = 8 poles electric motor

❻ **Potenza motore elettrico**
0000= pompa asse nudo senza base

❻ ***Electric motor power***
0000= bare shaft pump without base

A - 0.25 — 0.75 kW

B - 1.1 — 9.2 kW

C - 11 — 90 kW

D - 110 — 400 kW

KW	0.25	0.37	0.55	0.75
Cod.	A25	A37	A55	A75

KW	1.1	1.5	2.2	3.0	4.0	5.5	7.5	9.2
Cod.	B11	B15	B22	B30	B40	B55	B75	B92

KW	11	15	18.5	22	30	37	45	55	75	90
Cod.	C11	C15	C18	C22	C30	C37	C45	C55	C75	C90

KW	110	132	160	200	225	250	280	315	355	400
Cod.	D11	D13	D16	D20	D22	D25	D28	D31	D35	D40

❼ **Sistema di tenuta**
Esecuzione **M**: Tenuta meccanica
Esecuzione **B**: Tenuta a baderna (predisposta con raffreddamento)

❼ ***Sealing system***
M *Execution: Mechanical seal*
B *Execution: Gland packing without flushing*

❽ **Modello e materiali dei componenti della tenuta mecc. primaria**
Nota
Per esecuzioni “B” e “S”=000

❽ ***Primary mechanical seal materials and type***
Note
For “B” and “S” executions=000

❾ **Codice componenti principali della pompa**

❾ ***Identification code for pump’s parts***

DESCRIZIONE	*DESCRIPTION*	CODICE MATERIALE POMPA - *PUMPS MATERIAL CODE*
		1
CORPO ASPIRANTE	*SUCTION CASING*	GJL 250
CORPO PREMENTE	*DISCHARGE CASING*	GJL 250
GIRANTE	*IMPELLER*	GJL 250
ALBERO	*SHAFT*	AISI 420
PIEDE SOSTEGNO	*SUPPORT FOOT*	S 235 JR
LANTERNA	*LANTERN BRACKET*	GJL 250

Descrizione - *Description*	Unità di misura - *Unit of measurement*	Grandezze - *Size* 31	32	40	50
Casing - *Corpo*					
Spessore corpo - *Casing thickness*	mm	15	15	15	15
Pressione max. - *Max. pressure*	bar	40	40	40	40
Girante - *Impeller*					
Numero di giranti - *Impeller number*		1 - 11	1 - 11	1 - 10	1 - 10
Luce di uscita girante - *Impeller width*	mm	2.5	5	6	8
Dia di ingresso - *Inlet diameter*	mm	40	40	65	65
Dia massimo - *Max. diameter*	mm	138	138	155	155
Dia minimo - *Min. diameter*	mm	116	116	131	131
Cassa stoppa - *Seal Chamber*					
Diametro - *Diameter*	mm	43	43	43	43
Profondità - *Lenght*	mm	40	40	65	65
Sezione baderna - *Section packing*	mm	-	-	10	10
N° anelli baderna - *Number of packing ring*	-	-	-	9	9
Diam.Ten. meccanica L.C. - *Dia. mechanical seal D.S.*	mm	32	32	(c)	(c)
Diam.Ten. meccanica L.O.C. - *Dia. mechanical seal N.D.S.*	mm	(b)	(b)	(b)	(b)
Camera raffreddamento. - Cooling jacket					
Max. pressione - Max. pressure	bar	3	3	3	3
Connessioni - Connections holes		G.1/4	G.1/4	G.1/4	G.1/4
Albero - *Shaft*					
Diam. Sotto la camicia - *Shaft dia. under sleeve*	mm	22 (a)	22 (a)	28	28
Diam. Sotto la girante - *Shaft dia.under impeller*	mm	25	25	32	32
Cuscinetti - *Bearings*					
Lato Comando - *Drive Side*		3305	3305	Fino a 7 3305 Dopo 7 3306	Fino a 7 3305 Dopo 7 3306
Lato Opposto Comando - *Not Drive Side*		6403	6403	6305	6305

(a) Camicia presente solo su TSK - TSKB - TSKL - *shaft sleeve only for TSK - TSKB - TSKL*

I dati tecnici indicati non sono impegnativi e possono cambiare con le condizioni di lavoro
Technical data are indicative and they can change to pump work

(b) fino a 6 giranti ø30 dopo ø28 - *up to 6 impeller ø30 further ø28*
(c) fino a 6 giranti ø30 dopo ø32 - *up to 6 impeller ø30 further ø32*

Limiti di pressione e di temperatura

(Senza prescrizioni speciali)

Materiali di costruzione:
Construction materials:



Pressure and temperature limits

(Without special advice)

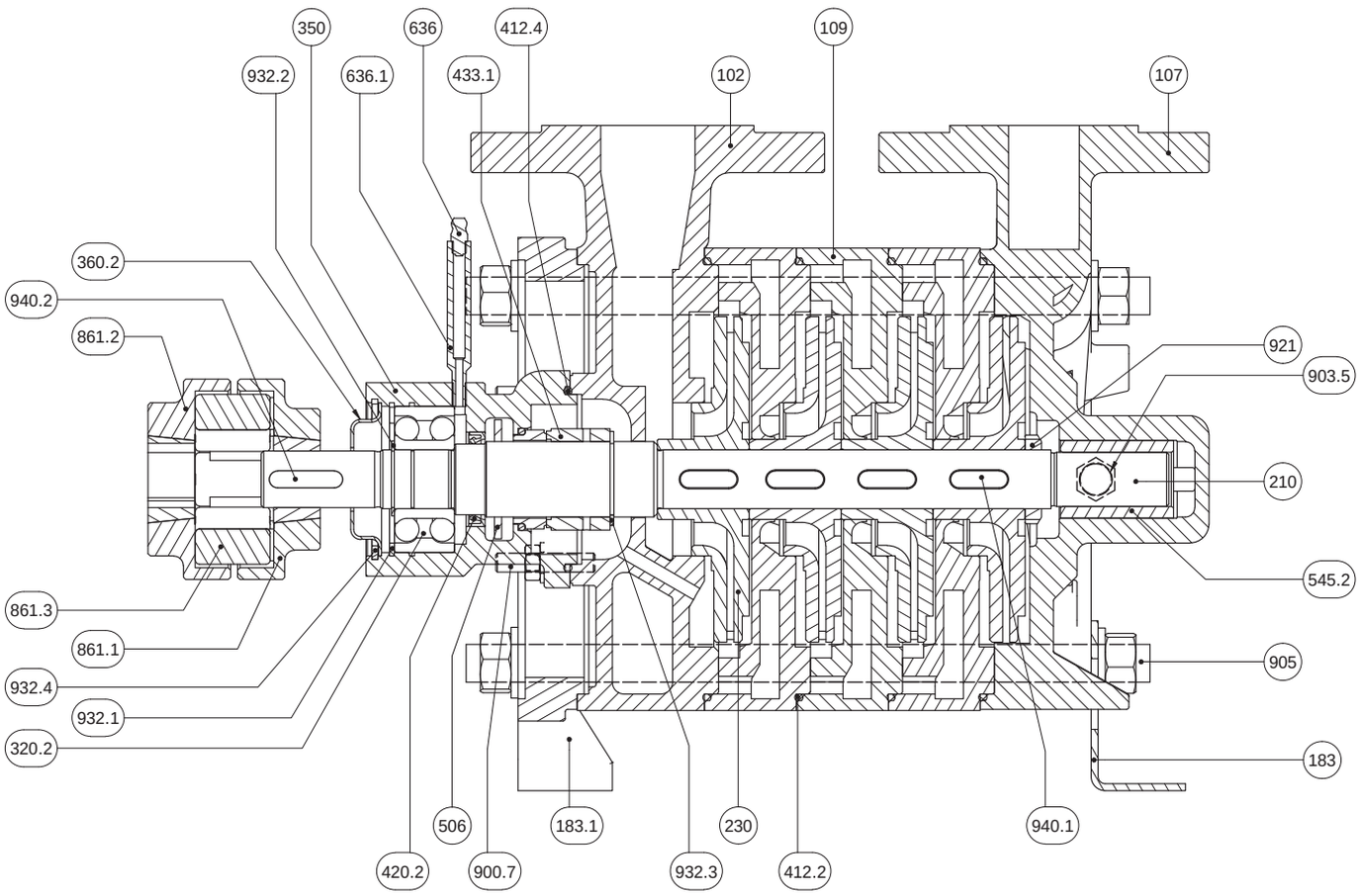
LIMITI DI IMPIEGO
DUTY LIMITS

Materiale	Temperatura	Pressione
Ghisa	-20 +120	40 Bar

Material	*Temperature*	*Pressure*
Cast iron	-20 +120	40 Bar

Sezione con nomenclatura asse nudo

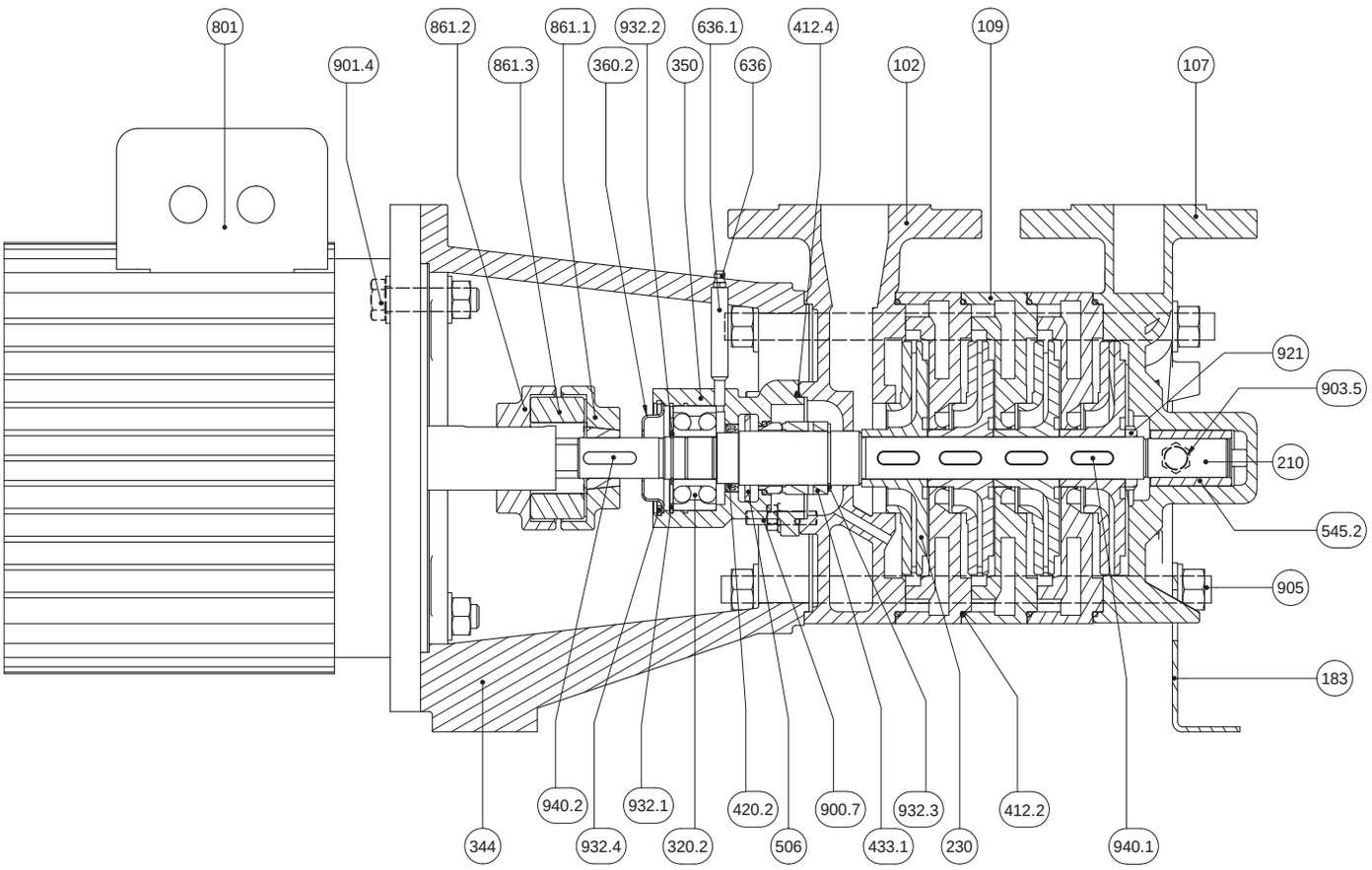
Bare shaft sectional view and nomenclature



N.	DESCRIZIONE	DESCRIPTION
102	Corpo aspirante	Suction casing
107	Corpo premente	Discharge casing
109	Elemento diffusore	Interstage difuser
183	Piede di appoggio l.o.c.	Support foot N.D.S.
183.1	Piede di appoggio l.c.	Support foot D.S.
210	Albero	Shaft
230	Girante	Impeller
320.2	Cuscinetto a sfere l.c.	Ball bearing D.S.
350	Supporto cuscinetto	Bearing housing
360.2	Coperchio cuscinetto l.c.	Bearing cover D.S.
412.2	O-ring elemento	O-ring
412.4	O-ring supporto	O-ring bearing housing
420.2	Anello di tenuta l.c.	Bearing cover seal D.S.
433.1	Tenuta Meccanica l.c.	Mechanical seal D.S.
506	Paraspruzzi	Deflector
545.2	Bronzina	Bearing bush

N.	DESCRIZIONE	DESCRIPTION
636	Ingrassatore	Grease nipple
636.1	Prolunga ingrassatore	Extention grease nipple
861.1	Semigiunto lato pompa	Half coupling pump side
861.2	Semigiunto lato motore	Half coupling motor side
861.3	Elastomero giunto	Coupling elastomer
900.7	Prigioniero con dado	Stud with nut
903.5	Tappo	Plug
905	Tirante	Tie bolt
921	Ghiera	Impeller nut
932.1	Anello di sicurezza (seeger) foro	Hole circlip
932.2	Anello di sicurezza (seeger) albero	Shaft circlip
932.3	Anello di sicurezza (seeger) albero	Shaft circlip
932.4	Anello di sicurezza (seeger) foro	Hole circlip
940.1	Linguetta girante	Impeller key
940.2	Linguetta giunto	Coupling key

Sezione con nomenclatura lanternata — *Lantern bracket sectional view and nomenclature*

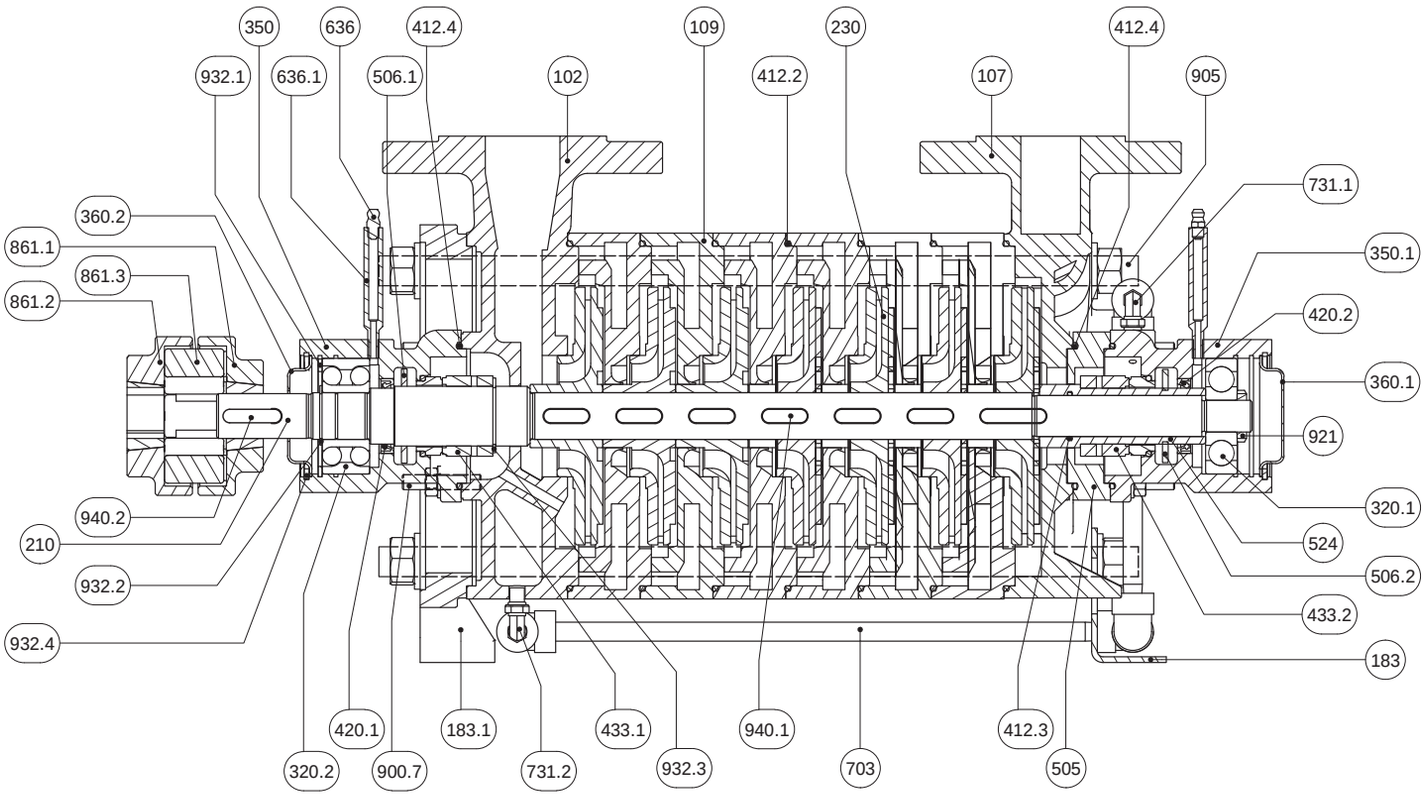


N.	DESCRIZIONE	DESCRIPTION
102	Corpo aspirante	Suction casing
107	Corpo premente	Discharge casing
109	Elemento diffusore	Interstage difuser
183	Piede di appoggio	Support foot
210	Albero	Shaft
230	Girante	Impeller
320.2	Cuscinetto a sfere l.c.	Ball bearing D.S.
344	Lanterna motore	Lantern bracket
350	Supporto cuscinetto	Bearing housing
360.2	Coperchio cuscinetto l.c.	Bearing cover D.S.
412.2	O-ring elemento	O-ring
412.4	O-ring supporto	O-ring bearing housing
420.2	Anello di tenuta l.c.	Bearing cover seal D.S.
433.1	Tenuta Meccanica l.c.	Mechanical seal D.S.
506	Paraspruzzi	Deflector
545.2	Bronzina	Bearing bush
636	Ingrassatore	Grease nipple

N.	DESCRIZIONE	DESCRIPTION
636.1	Prolunga ingrassatore	Extention grease nipple
801	Motore elettrico	Electric motor
861.1	Semigiunto lato pompa	Half coupling pump side
861.2	Semigiunto lato motore	Half coupling motor side
861.3	Elastomero giunto	Coupling elastomer
900.7	Prigioniero con dado	Stud with nut
903.5	Tappo	Plug
901.4	Vite T.E.	Hex head screw
905	Tirante	Tie bolt
921	Ghiera	Impeller nut
932.1	Anello di sicurezza (seeger) foro	Hole circlip
932.2	Anello di sicurezza (seeger) albero	Shaft circlip
932.3	Anello di sicurezza (seeger) albero	Shaft circlip
932.4	Anello di sicurezza (seeger) foro	Hole circlip
940.1	Linguetta girante	Impeller key
940.2	Linguetta giunto	Coupling key

Sezione con nomenclatura asse nudo

Bare shaft sectional view and nomenclature



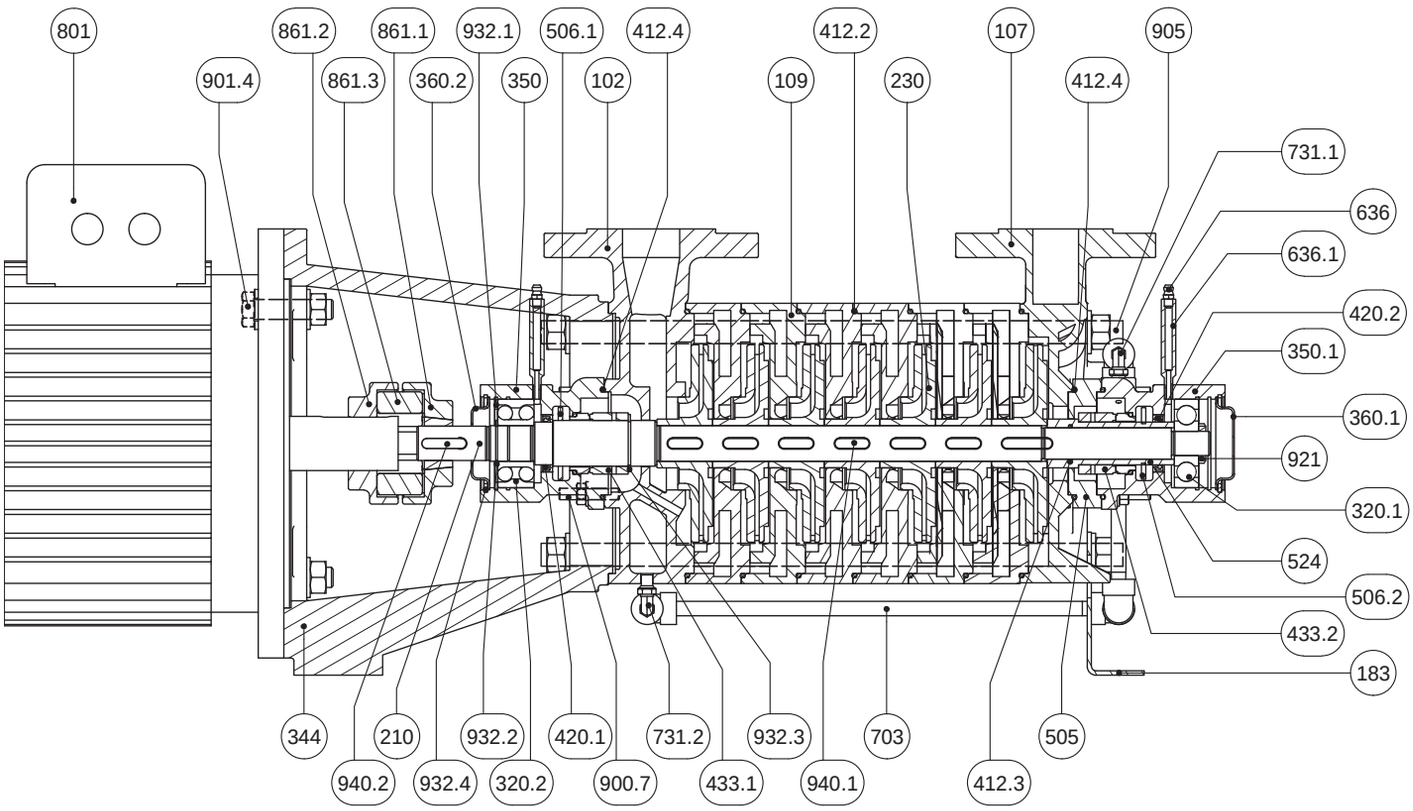
N.	DESCRIZIONE	DESCRIPTION
102	Corpo aspirante	Suction casing
107	Corpo premente	Discharge casing
109	Elemento diffusore	Interstage difuser
183	Piede di appoggio l.o.c.	Support foot N.D.S.
183.1	Piede di appoggio l.c.	Support foot D.S.
210	Albero	Shaft
230	Girante	Impeller
320.1	Cuscinetto a sfere l.o.c	Ball bearing N.D.S.
320.2	Cuscinetto a sfere l.c.	Ball bearing D.S.
350.1	Supporto cuscinetto l.o.c.	Bearing housing N.D.S.
350	Supporto cuscinetto l.c.	Bearing housing D.S.
360.1	Coperchio cuscinetto l.o.c	Bearing cover N.D.S.
360.2	Coperchio cuscinetto l.c.	Bearing cover D.S.
412.2	O-ring elemento	O-ring
412.3	O-ring camicia	O-ring shaft sleeve
412.4	O-ring supporto	O-ring bearing housing
420.1	Anello di tenuta l.o.c.	Bearing cover seal N.D.S.
420.2	Anello di tenuta l.c.	Bearing cover seal D.S.
433.1	Tenuta Meccanica l.c.	Mechanical seal D.S.
433.2	Tenuta Meccanica l.o.c.	Mechanical seal N.D.S.
505	Distanziale supporto	Bearing housing spacer

N.	DESCRIZIONE	DESCRIPTION
506.1	Paraspruzzi l.c.	Deflector D.S.
506.2	Paraspruzzi l.o.c.	Deflector N.D.S.
524	Camicia albero	Shaft sleeve
636	Ingrassatore	Grease nipple
636.1	Prolunga ingrassatore	Extention grease nipple
703	Tubazione di bilanciamento	Balancing pipe
731.1	Raccordo a gomito	Union elbow
731.2	Raccordo dritto	Union
861.1	Semigiunto lato pompa	Half coupling pump side
861.2	Semigiunto lato motore	Half coupling motor side
861.3	Elastomero giunto	Coupling elastomer
900.7	Prigioniero con dado	Stud with nut
905	Tirante	Tie bolt
921	Ghiera	Impeller nut
932.1	Anello di sicurezza (seeger) foro	Hole circlip
932.2	Anello di sicurezza (seeger) albero	Shaft circlip
932.3	Anello di sicurezza (seeger) albero	Shaft circlip
932.4	Anello di sicurezza (seeger) foro	Hole circlip
940.1	Linguetta girante	Impeller key
940.2	Linguetta giunto	Coupling key

TSKL 31 TSKL 32

T-1598 / 04/05/20

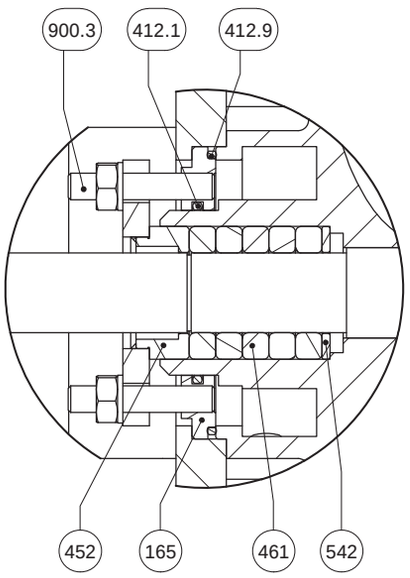
Sezione con nomenclatura lanternata — *Lantern bracket sectional view and nomenclature*



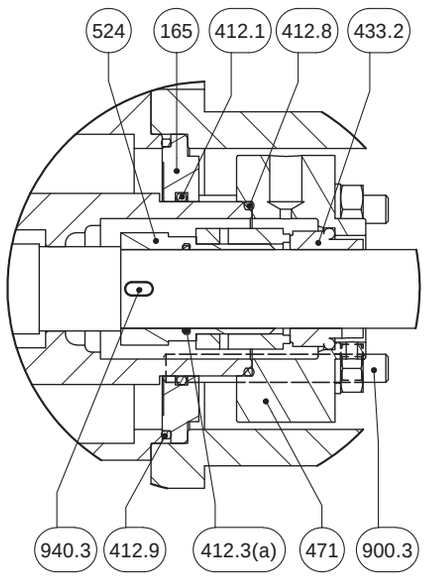
N.	DESCRIZIONE	DESCRIPTION
102	Corpo aspirante	Suction casing
107	Corpo premente	Discharge casing
109	Elemento diffusore	Interstage difuser
183	Piede di appoggio l.o.c.	Support foot
210	Albero	Shaft
230	Girante	Impeller
320.1	Cuscinetto a sfere l.o.c	Ball bearing N.D.S.
320.2	Cuscinetto a sfere l.c.	Ball bearing D.S
344	Lanterna motorre	Lantern bracket
350.1	Supporto cuscinetto l.o.c.	Bearing housing N.D.S.
350	Supporto cuscinetto l.c.	Bearing housing D.S.
360.1	Coperchio cuscinetto l.o.c	Bearing cover N.D.S.
360.2	Coperchio cuscinetto l.c.	Bearing cover D.S.
412.2	O-ring elemento	O-ring
412.3	O-ring camicia	O-ring shaft sleeve
412.4	O-ring supporto	O-ring bearing housing
420.1	Anello di tenuta l.o.c.	Bearing cover seal N.D.S.
420.2	Anello di tenuta l.c.	Bearing cover seal D.S.
433.1	Tenuta Meccanica l.c.	Mechanical seal D.S.
433.2	Tenuta Meccanica l.o.c.	Mechanical seal N.D.S.
505	Distanziale supporto	Bearing housing spacer
506.1	Paraspruzzi l.c.	Deflector D.S.

N.	DESCRIZIONE	DESCRIPTION
506.2	Paraspruzzi l.o.c.	Deflector N.D.S.
524	Camicia albero	Shaft sleeve
636	Ingrassatore	Grease nipple
636.1	Prolunga ingrassatore	Extention grease nipple
703	Tubazione di bilanciamento	Balancing pipe
731.1	Raccordo a gomito	Union elbow
731.2	Raccordo dritto	Union
801	Motore elettrico	Electric motor
861.1	Semigiunto lato pompa	Half coupling pump side
861.2	Semigiunto lato motore	Half coupling motor side
861.3	Elastomero giunto	Coupling elastomer
900.7	Prigioniero con dado	Stud with nut
901.4	Vite T.E.	Hex head screw
905	Tirante	Tie bolt
921	Ghiera	Impeller nut
932.1	Anello di sicurezza (seeger) foro	Hole circlip
932.2	Anello di sicurezza (seeger) albero	Shaft circlip
932.3	Anello di sicurezza (seeger) albero	Shaft circlip
932.4	Anello di sicurezza (seeger) foro	Hole circlip
940.1	Linguetta girante	Impeller key
940.2	Linguetta giunto	Coupling key

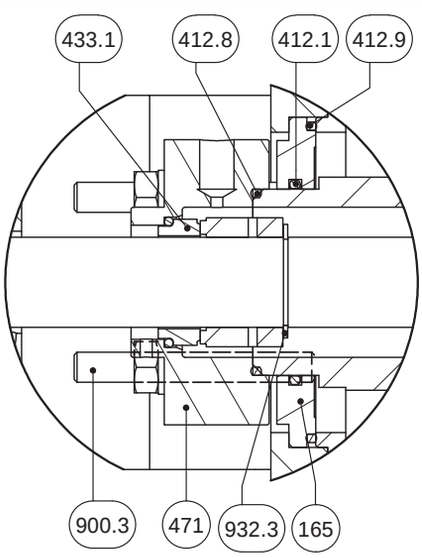
Tenuta a baderna
Packing gland seal
TS 40 TS 50



Tenuta meccanica lato mandata
Discharge side mechanical seal
TS 40 TS 50



Tenuta meccanica lato aspirazione
Suction side mechanical seal
TS 40 TS 50



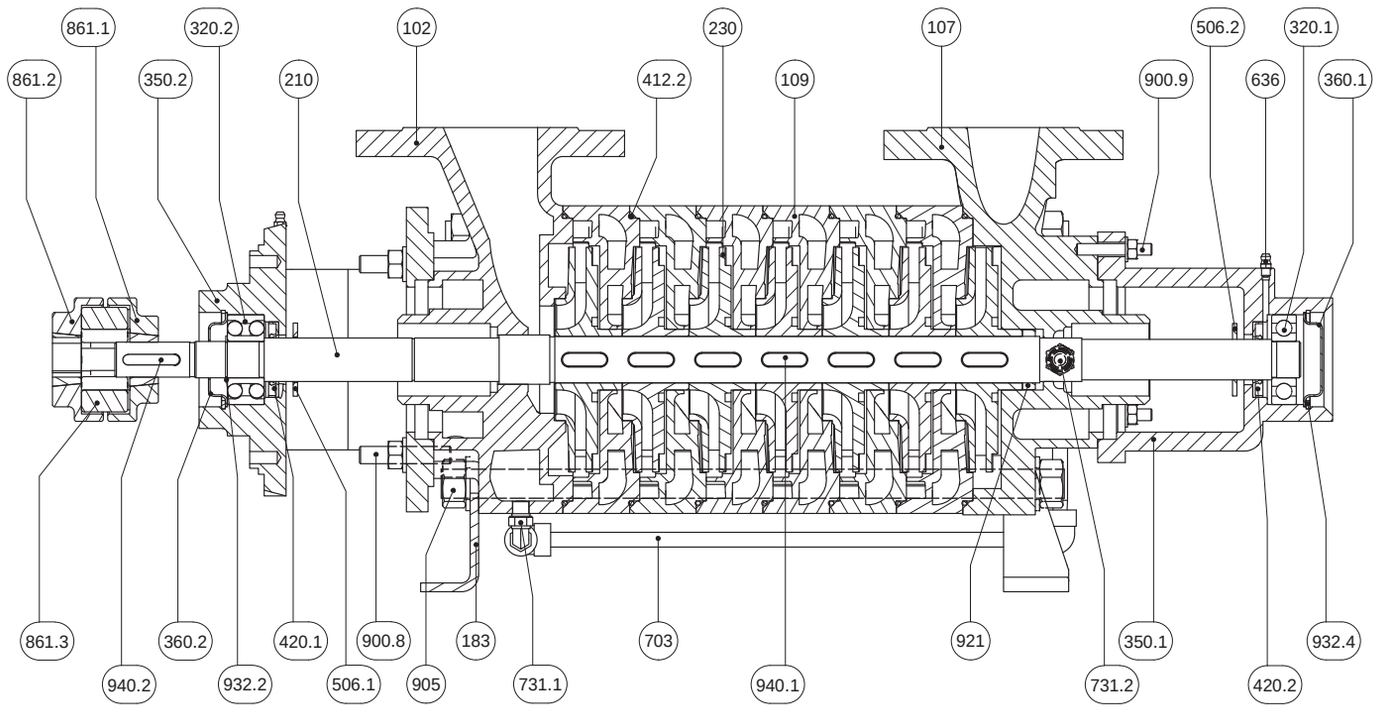
N.	DESCRIZIONE	DESCRIPTION
165	Coperchio camera di raffreddamento	Cooling chamber cover
412.1	O.Ring	O.Ring
412.3(a)	O.Ring	O.Ring
412.8	O.Ring	O.Ring
412.9	O.Ring	O.Ring
433.1	Tenuta meccanica L.C.	Mechanical seal D.S.
433.2	Tenuta meccanica L.O.C.	Mechanical seal N.D.S.
452	Premitreccia	Packing gland
461	Baderna	Packing ring
471	Coperchio tenuta meccanica	Mechanical seal cover
524	Camicia albero	Shaft sleeve
542	Bussola di fondo	Bottom sleve
900.3	Prigioniero con dado	Stud with nut
932.3	Anello di sicurezza albero	Shaft circlip
940.3	Linguetta camicia	Shaft sleeve key

[a] Solo su grandezze - *only for size* TSKB 40-50/7, 40-50/8, 40-50/9, 40-50/10

Le informazioni e i dati tecnici forniti in questo catalogo non sono impegnativi e potranno pertanto essere modificati senza preavviso.
All informations and technical data appearing in this publication are not compulsory andtherefore can be modified without further notice

Sezione con nomenclatura asse nudo

Bare shaft sectional view and nomenclature



N.	DESCRIZIONE	DESCRIPTION
102	Corpo aspirante	Suction casing
107	Corpo premente	Discharge casing
109	Elemento diffusore	Interstage difuser
183	Piede di appoggio	Support foot
210	Albero	Shaft
230	Girante	Impeller
320.1	Cuscinetto a sfere l.o.c.	Ball bearing N.D.S.
320.2	Cuscinetto a sfere l.c.	Ball bearing D.S.
350.1	Supporto cuscinetto l.o.c.	Bearing housing N.D.S.
350.2	Supporto cuscinetto l.c.	Bearing housing D.S.
360.1	Coperchio cuscinetto l.o.c.	Bearing cover N.D.S.
360.2	Coperchio cuscinetto l.c.	Bearing cover D.S.
412.2	O-ring elemento	O-ring
420.1	Anello di tenuta l.c.	Bearing cover seal D.S.
420.2	Anello di tenuta l.o.c.	Bearing cover seal N.D.S.
506.1	Paraspruzzi l.c.	Deflector D.S.

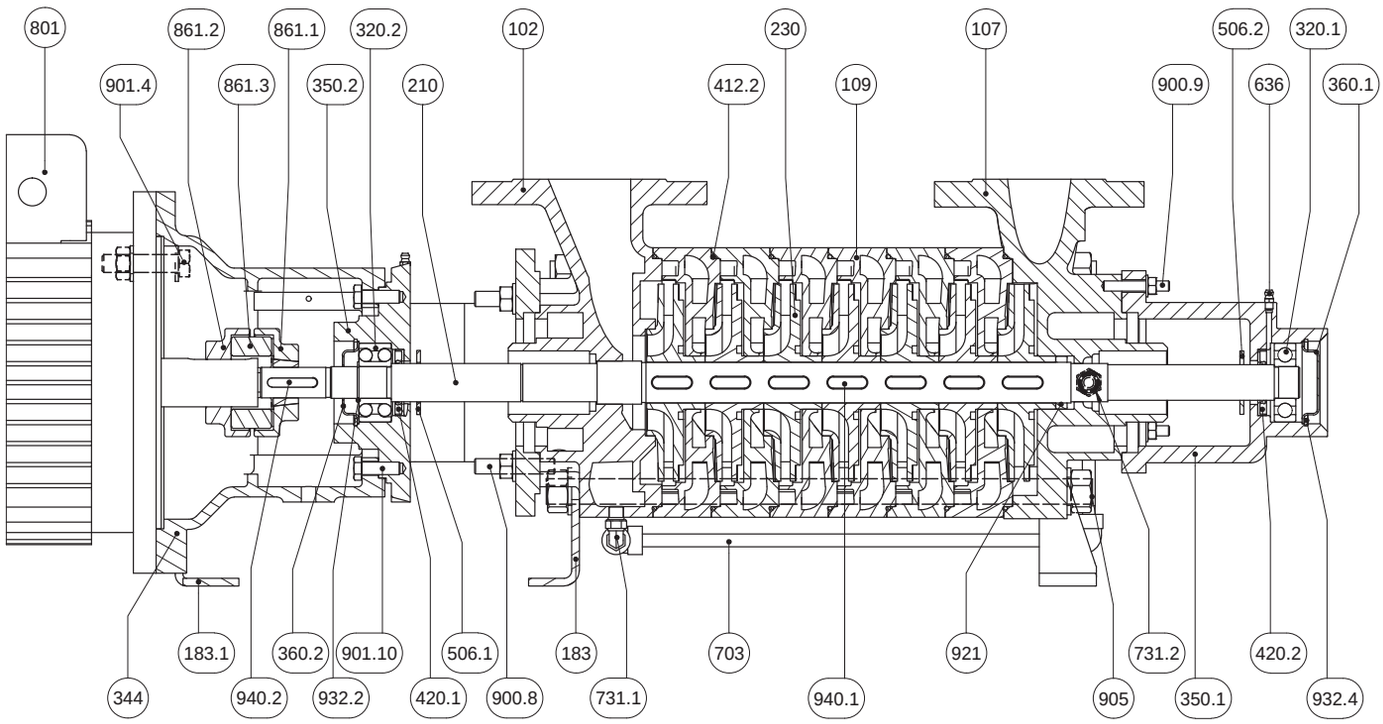
N.	DESCRIZIONE	DESCRIPTION
506.2	Paraspruzzi l.o.c.	Deflector N.D.S.
636	Ingrassatore	Grease nipple
703	Tubazione di bilanciamento	Balancing pipe
731.1	Raccordo a gomito	Union elbow
731.2	Raccordo diritto	Union
861.1	Semigiunto lato pompa	Half coupling pump side
861.2	Semigiunto lato motore	Half coupling motor side
861.3	Elastomero giunto	Coupling elastomer
900.8	Prigioniero con dado	Stud with nut
900.9	Prigioniero con dado	Stud with nut
905	Tirante	Tie bolt
921	Ghiera	Impeller nut
932.2	Anello di sicurezza (seeger) albero	Shaft circlip
932.4	Anello di sicurezza (seeger) foro	Hole circlip
940.1	Linguetta girante	Impeller key
940.2	Linguetta giunto	Coupling key

TSKL 40 TSKL 50

T-1059 / 04/05/20

Sezione con nomenclatura lanternata

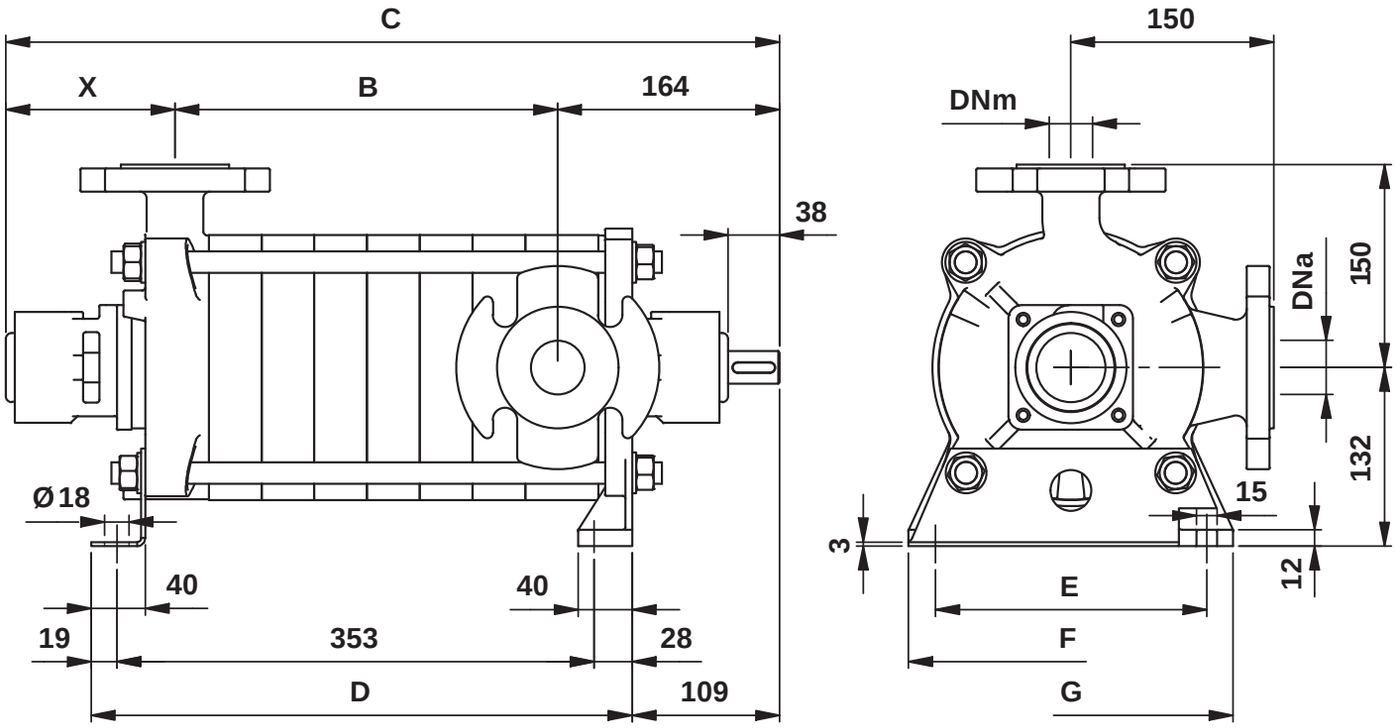
Lantern bracket sectional view and nomenclature



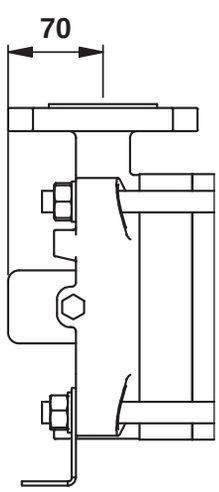
N.	DESCRIZIONE	DESCRIPTION
102	Corpo aspirante	Suction casing
107	Corpo premente	Discharge casing
109	Elemento diffusore	Interstage difuser
183	Piede di appoggio	Support foot
183.1	Piede Lanterna	Lantern foot
210	Albero	Shaft
230	Girante	Impeller
320.1	Cuscinetto a sfere l.o.c.	Ball bearing N.D.S.
320.2	Cuscinetto a sfere l.c.	Ball bearing D.S.
344	Lanterna motore	Lantern Bracket
350.1	Supporto cuscinetto l.o.c.	Bearing housing N.D.S.
350.2	Supporto cuscinetto l.c.	Bearing housing D.S.
360.1	Coperchio cuscinetto l.o.c.	Bearing cover N.D.S.
360.2	Coperchio cuscinetto l.c.	Bearing cover D.S.
412.2	O-ring elemento	O-ring
420.1	Anello di tenuta l.c.	Bearing cover seal D.S.
420.2	Anello di tenuta l.o.c.	Bearing cover seal N.D.S.
506.1	Paraspruzzi l.c.	Deflector D.S.
506.2	Paraspruzzi l.o.c.	Deflector N.D.S.

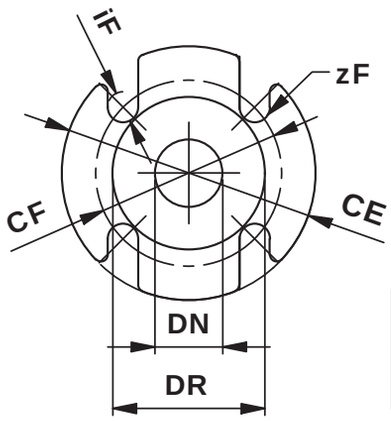
N.	DESCRIZIONE	DESCRIPTION
636	Ingrassatore	Grease nipple
703	Tubazione di bilanciamento	Balancing pipe
731.1	Raccordo a gomito	Union elbow
732.2	Raccordo diritto	Union
801	Motore elettrico	Electric motor
861.1	Semigiunto lato pompa	Half coupling pump side
861.2	Semigiunto lato motore	Half coupling motor side
861.3	Elastomero giunto	Coupling elastomer
900.8	Prigioniero con dado	Stud with nut
900.9	Prigioniero con dado	Stud with nut
901.4	Vite T.E.	Hex head screw
901.10	Vite T.E.	Hex head screw
905	Tirante	Tie bolt
921	Ghiera	Impeller nut
932.2	Anello di sicurezza (seeger) albero	Shaft circlip
932.4	Anello di sicurezza (seeger) foro	Hole circlip
940.1	Linguetta girante	Impeller key
940.2	Linguetta giunto	Coupling key

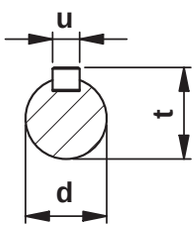
Ingombri asse nudo — *Bare shaft overall dimensions*



Solo per pompe TSB
Only for TSB pumps







FLANGIA ASP. (PN 16 EN 1092-2) *SUCTION FLANGE*						FLANGIA PREM. (PN 40 EN 1092-2) *DISCHARGE FLANGE*					
DNa	CE	CF	DR	zF	iF	DNm	CE	CF	DR	zF	iF
40	150	110	88	4	18	32	140	100	78	4	18

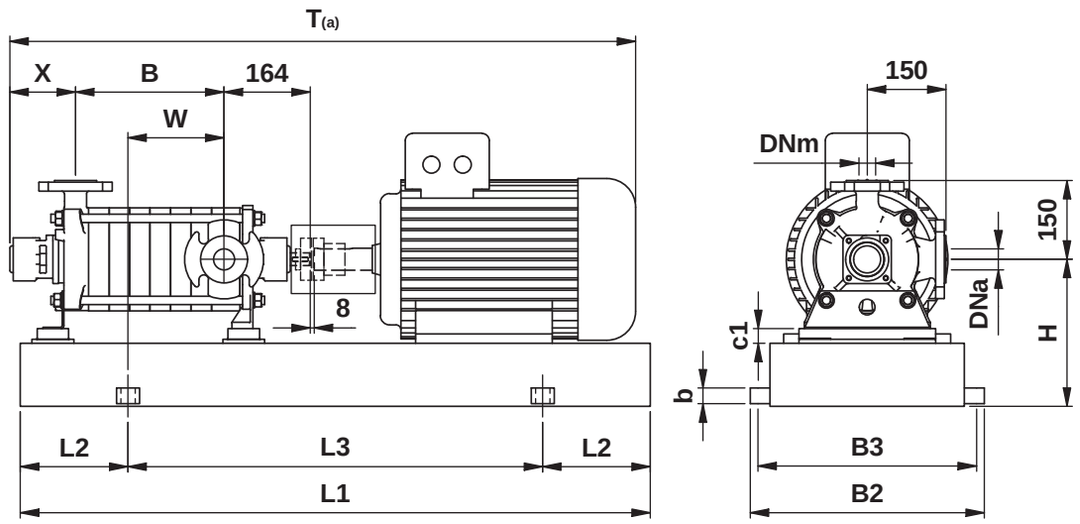
Tipo - *Type*	DIMENSIONI - *DIMENSION* [mm]													Peso *Weight*
	Pompa - *Pumps*										Albero - *Shaft*			
	DNa	DNm	A	B	C	D	E	F	G	X	d	t	u	Kg
31 - 4 32 - 4	40	32	236	166	435	283	200	240	240	105	24	27	8	44
31 - 5 32 - 5	40	32	275	205	474	322	200	240	240	105	24	27	8	49
31 - 6 32 - 6	40	32	314	244	513	361	200	240	240	105	24	27	8	54
31 - 7 32 - 7	40	32	353	283	572	400	200	240	240	125	24	27	8	59
31 - 8 32 - 8	40	32	392	322	611	439	200	240	240	125	24	27	8	64
31 - 9 32 - 9	40	32	431	361	650	478	200	240	240	125	24	27	8	69
31 - 10 32 - 10	40	32	470	400	689	517	200	240	240	125	24	27	8	74
31 - 11 32 - 11	40	32	509	439	728	556	200	240	240	125	24	27	8	79

Quote e pesi suscettibili di variazione
Dimensions and weights are subject to variations

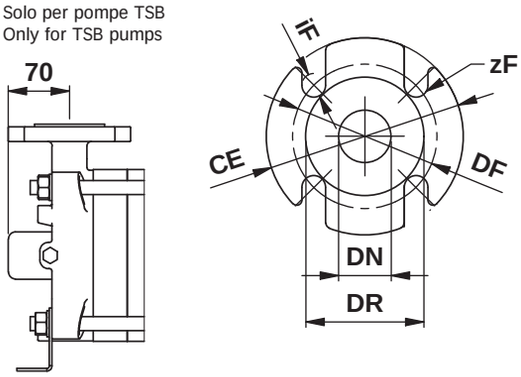
TSB TSKB 31 TSB TSKB 32

T-1709 / 04/05/20

Ingombri su base con giunto standard — *Overall dimensions on base with standard coupling*



Solo per pompe TSB
Only for TSB pumps



FLANGIA ASP. (PN 16 EN 1092-2) *SUCTION FLANGE*						FLANGIA PREM. (PN 40 EN 1092-2) *DISCHARGE FLANGE*					
DNa	CE	CF	DR	zF	iF	DNm	CE	CF	DR	zF	iF
40	150	110	88	4	18	32	140	100	78	4	18

ACCOPPIAMENTO POTENZA - POLARITÀ / GRANDEZZA MOTORE *POWER – POLARITY / MOTOR SIZE COUPLING*															
2POLI	GRAND.	71	80	80	90S	90L	100L	112M	132S	132S	132M	160M	160M	160L	180M
	kW	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	9,2	11	15	18,5	22
4POLI	GRAND.	80	80	90S	90L	100L	100L	112M	132S	132M	132M	160M	160L	180M	180L
	kW	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	9,2	11	15	18,5	22
6POLI	GRAND.	80	90S	90L	100L	112M	132S	132M	132M	160M	160L	180L	-	-	-
	kW	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	11	15	-	-	-

Tipo - *Type*	Grandezza Motore *Motor Size*	Base N°	DIMENSIONI - *DIMENSION* [mm]													T(a)	Peso *Weight*
			Pompa - *Pumps*						Base								
			DNa	DNm	B	H	W	c1	L1	L2	L3	B2	B3	b	d		Kg
31 - 4 / 32 - 4	132M	2	40	32	166	252	96	0	1000	170	660	400	360	30	20	933	146
31 - 5 / 32 - 5	132S	2	40	32	205	252	135	0	1000	170	660	400	360	30	20	937	140
	132M															972	151
31 - 6 / 32 - 6	132S	3	40	32	244	252	144	0	1200	205	790	450	400	30	20	976	156
	132M															1011	167
	160M					280		28								1133	244
	160L															1172	257
31 - 7 / 32 - 7	132S	3	40	32	283	252	183	0	1200	205	790	450	400	30	20	1035	161
	132M															1070	172
31 - 8 / 32 - 8	132S	3	40	32	322	252	222	0	1200	205	790	450	400	30	20	1074	166
	132M															1109	178
	160M					280		28								1231	254
31 - 9 / 32 - 9	132S	3	40	32	361	252	261	0	1200	205	790	450	400	30	20	1113	171
	132M															1148	182
	160M					280		28								1270	259
31 - 10 / 32 - 10	132M	4	40	32	400	252	260	0	1500	245	1010	480	440	30	20	1187	197
	160M					280		28								1309	275
	160L							28								1348	288
31 - 11 / 32 - 11	132M	4	40	32	439	252	299	0	1500	245	1010	480	440	30	20	1226	202
	160M					280		28								1348	280
	160L															1387	293

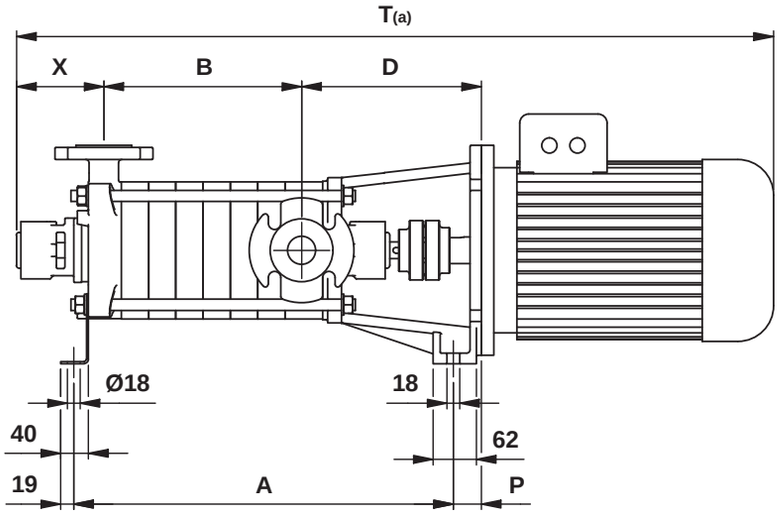
Quote e pesi suscettibili di variazione
Dimensions and weights are subject to variations

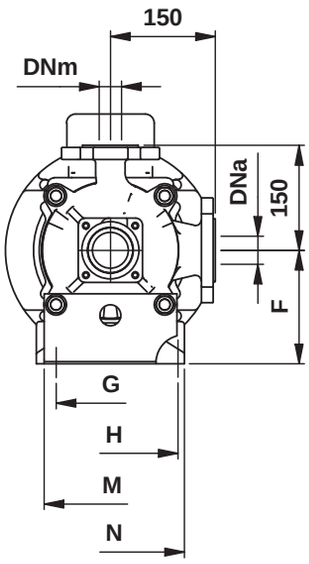
[a] Quota indicativa può variare in funzione della marca del motore
Not binding dimension that can change according to motor brand

TSL TSKL 31 TSL TSKL 32

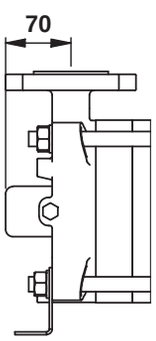
T-1102 / 04/05/20

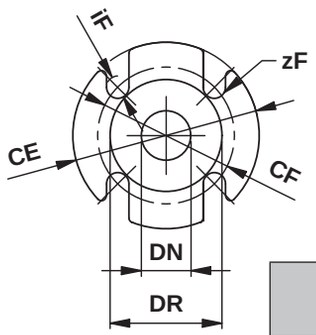
Ingombri lanternata — *Lantern bracket pump Overall dimensions*





Solo per pompe TSL
Only for TSL pumps





FLANGIA ASP. (PN 16 EN 1092-2) *SUCTION FLANGE*						FLANGIA PREM. (PN 40 EN 1092-2) *DISCHARGE FLANGE*					
DNa	CE	CF	DR	zF	iF	DNm	CE	CF	DR	zF	iF
40	150	110	88	4	18	32	140	100	78	4	18

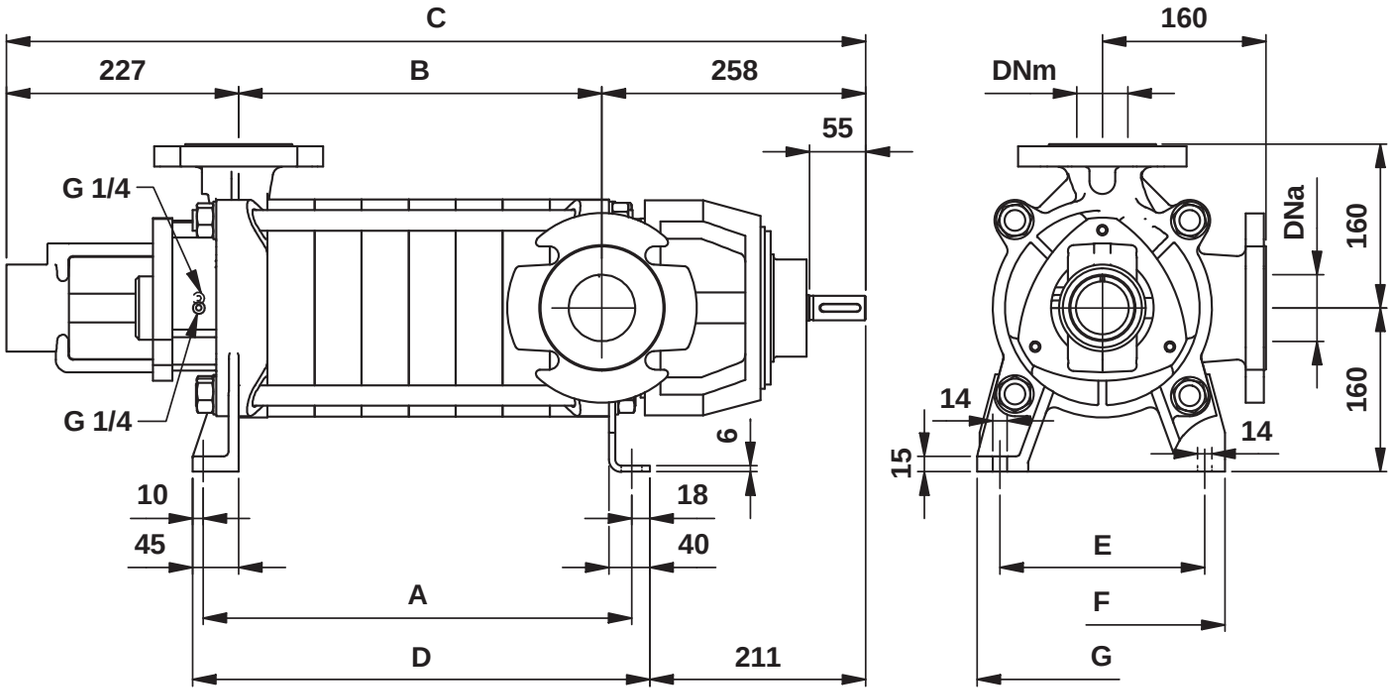
ACCOPPIAMENTO POTENZA - POLARITÀ / GRANDEZZA MOTORE *POWER – POLARITY / MOTOR SIZE COUPLING*															
2POLI	GRAND.	71	80	80	90S	90L	100L	112M	132S	132S	132M	160M	160M	160L	180M
	kW	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	9,2	11	15	18,5	22
4POLI	GRAND.	80	80	90S	90L	100L	100L	112M	132S	132M	132M	160M	160L	180M	180L
	kW	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	9,2	11	15	18,5	22
6POLI	GRAND.	80	90S	90L	100L	112M	132S	132M	132M	160M	160L	180L	-	-	-
	kW	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	11	15	-	-	-

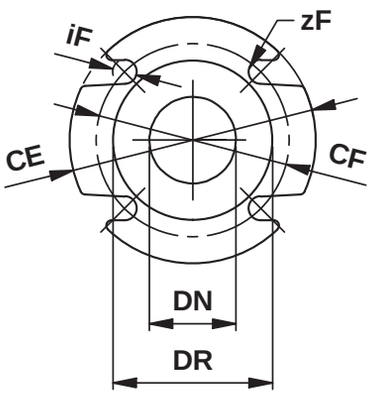
Tipo - *Type*	Grandezza Motore *Motor Size*	DIMENSIONI - *DIMENSION* [mm] Pompa - Pumps												T(a)	[a]Peso *Weight*
		DNa	DNm	A	B	D	F	G	H	M	N	P	X		Kg
31 - 4 / 32 - 4	132M	40	32	426	166	257	162	155	192	190	212	40	105	985	116
31 - 5 / 32 - 5	132S	40	32	465	205	257	162	155	192	190	212	40	105	948	110
31 - 6 / 32 - 6	132S	40	32	504	244	257	162	155	192	190	212	40	105	987	115
32 - 6	132M													1024	126
31 - 7 / 32 - 7	132S	40	32	543	283	257	162	155	192	190	212	40	125	1046	120
	132M													1083	131
32 - 7	160M					287	202	232	268	270	294	70		1197	216
31 - 8 / 32 - 8	132S	40	32	582	322	257	162	155	192	190	212	40	125	1085	125
	132M													1122	136
32 - 8	160M					287	202	232	268	270	294	70		1236	221
31 - 9 / 32 - 9	132S	40	32	621	361	257	162	155	192	190	212	40	125	1124	130
	132M													1161	141
	160M					287	202	232	268	270	294	70		1275	226
31 - 10 / 32 - 10	132M	40	32	660	400	257	162	155	192	190	212	40	125	1200	146
	160M					287	202	232	268	270	294	70		1314	231
	160L													1353	244
31 - 11 / 32 - 11	132M	40	32	699	439	257	162	155	192	190	212	40	125	1239	151
	160M					287	202	232	268	270	294	70		1353	236
	160L													1392	249

Quote e pesi suscettibili di variazione
Dimensions and weights are subject to variations

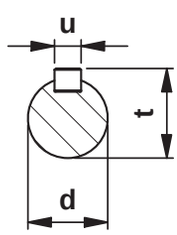
[a] Quota indicativa può variare in funzione della marca del motore
Not binding dimension that can change according to motor brand

Ingombri asse nudo — *Bare shaft overall dimensions*





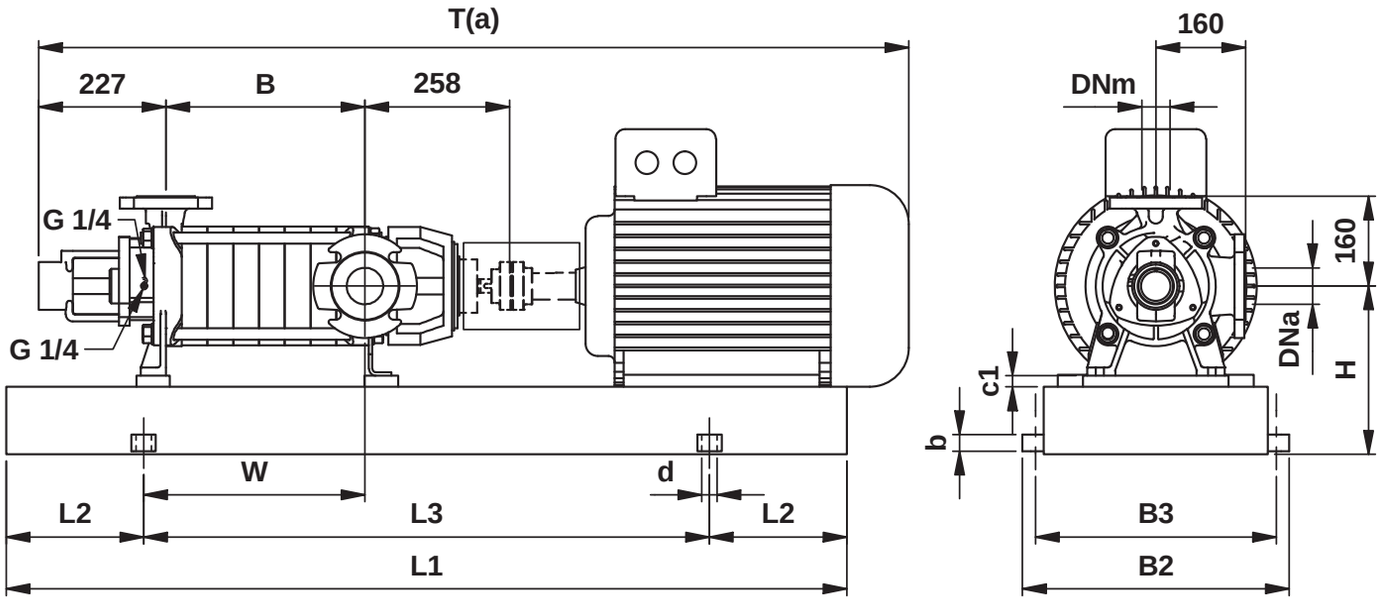
FLANGIA ASP. (PN 16 EN 1092-2) *SUCTION FLANGE*						FLANGIA PREM. (PN 40 EN 1092-2) *DISCHARGE FLANGE*					
DNa	CE	CF	DR	zF	iF	DNm	CE	CF	DR	zF	iF
65	185	145	120	8	18	50	165	125	104	4	18

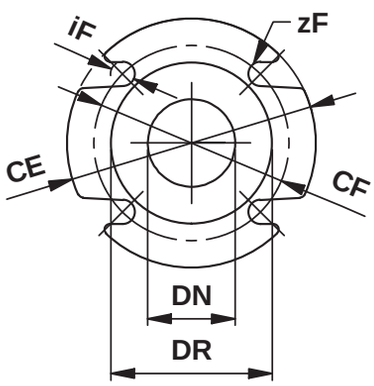


Tipo - *Type*	DIMENSIONI - *DIMENSION* [mm]												Peso *Weight*
	Pompa - *Pumps*									Albero - *Shaft*			
	DNa	DNm	A	B	C	D	E	F	G	d	t	u	Kg
40 - 4 50 - 4	65	50	281	217	702	309	200	240	245	24	27	8	72
40 - 5 50 - 5	65	50	327	263	748	355	200	240	245	24	27	8	79
40 - 6 50 - 6	65	50	373	309	794	401	200	240	245	24	27	8	85
40 - 7 50 - 7	65	50	419	355	840	447	200	240	245	24	27	8	92
40 - 8 50 - 8	65	50	465	401	886	493	200	240	245	24	27	8	98
40 - 9 50 - 9	65	50	511	447	932	539	200	240	245	24	27	8	105
40 - 10 50 - 10	65	50	557	493	978	585	200	240	245	24	27	8	111

Quote e pesi suscettibili di variazione
Dimensions and weights are subject to variations

Ingombri su base con giunto standard — *Overall dimensions on base with standard coupling*





FLANGIA ASP. (PN 16 EN 1092-2) *SUCTION FLANGE*						FLANGIA PREM. (PN 40 EN 1092-2) *DISCHARGE FLANGE*					
DNa	CE	CF	DR	zF	iF	DNm	CE	CF	DR	zF	iF
65	185	145	120	8	18	50	165	125	104	4	18

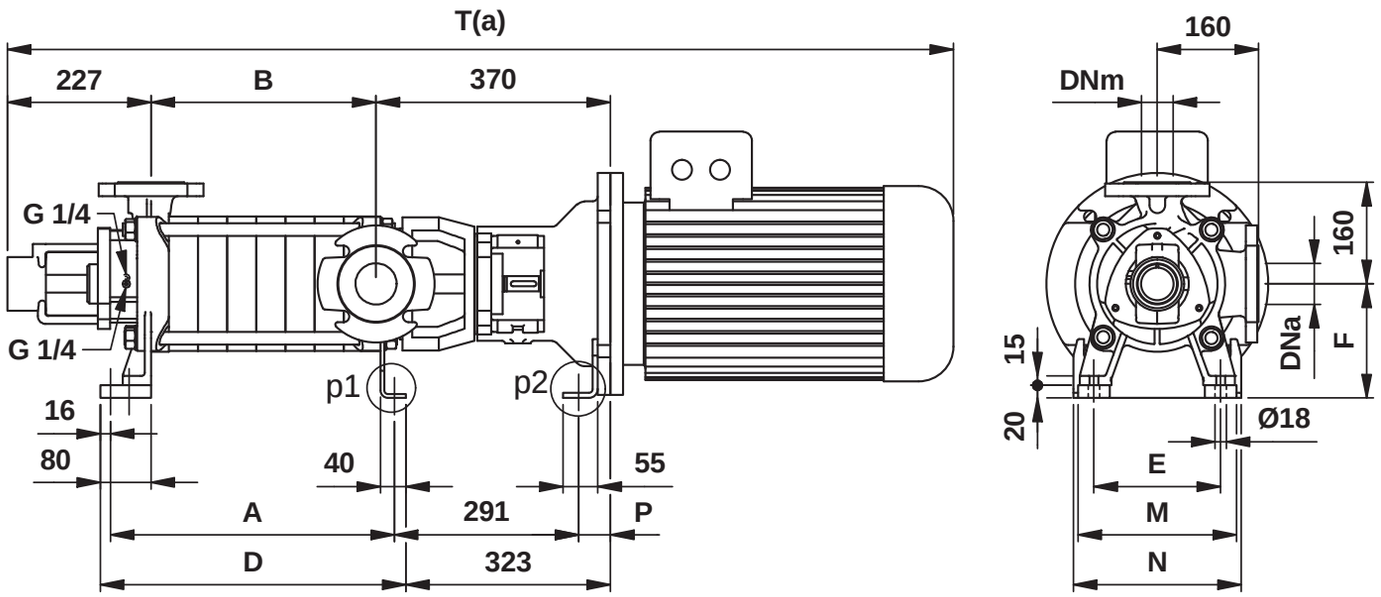
ACCOPPIAMENTO POTENZA - POLARITÀ / GRANDEZZA MOTORE *POWER – POLARITY / MOTOR SIZE COUPLING*															
2POLI	GRAND.	71	80	80	90S	90L	100L	112M	132S	132S	132M	160M	160M	160L	180M
	kW	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	9,2	11	15	18,5	22
4POLI	GRAND.	80	80	90S	90L	100L	100L	112M	132S	132M	132M	160M	160L	180M	180L
	kW	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	9,2	11	15	18,5	22
6POLI	GRAND.	80	90S	90L	100L	112M	132S	132M	132M	160M	160L	180L	-	-	-
	kW	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	11	15	-	-	-

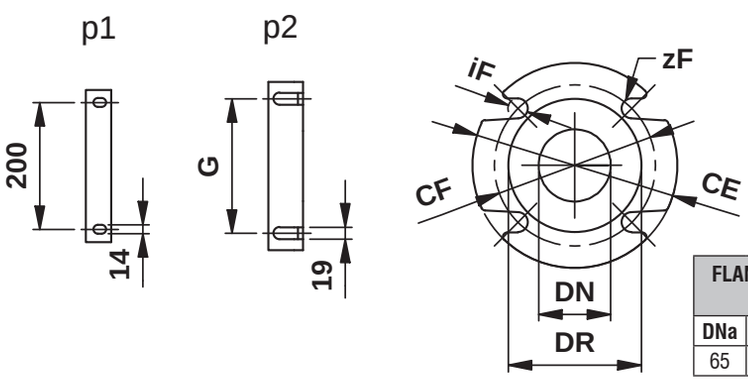
Tipo - *Type*	Grandezza Motore *Motor Size*	Base N°	DIMENSIONI - *DIMENSION* [mm]													T(a)	Peso *Weight*
			Pompa - *Pumps*						Base								
			DNa	DNm	B	H	W	c1	L1	L2	L3	B2	B3	b	d		Kg(a)
40 - 4 / 50 - 4	160M	3	65	50	217	280	205	0	1200	205	790	450	400	30	20	1322	262
	160L															1361	275
40 - 5 / 50 - 5	160M	3	65	50	263	280	205	0	1200	205	790	450	400	30	20	1368	269
	160L															1407	282
	180M	4				300	395	20	1500	245	1010	480	440	30	20	1421	337
40 - 6 / 50 - 6	160M	3	65	50	309	280	205	0	1200	205	790	450	400	30	20	1414	276
	160L															1453	289
	180M	4				300	395	20	1500	245	1010	480	440			1467	344
	200L					320		40								1540	420
40 - 7 / 50 - 7	160M	3	65	50	355	280	205	0	1200	205	790	450	400	30	20	1460	283
	160L															1499	296
	180M	4				300	395	20	1500	245	1010	480	440			1513	351
	200L					320		40								1586	427
40 - 8 / 50 - 8	200L	4	65	50	401	320	395	40	1500	245	1010	480	440	30	20	1632	434
40 - 9 / 50 - 9	200L	4	65	50	447	320	395	40	1500	245	1010	480	440	30	20	1678	441
	225M	6				365		65	1300	215	870	510	460	12	24	1758	500
40 - 10 / 50 - 10	200L	4	65	50	493	320	395	40	1500	245	1010	480	440	30	20	1724	448
	225M	6				365		65	1300	215	870	510	460	12	24	1804	507

Quote e pesi suscettibili di variazione
Dimensions and weights are subject to variations

(a) Quota indicativa può variare in funzione della marca del motore
Not binding dimension that can change according to motor brand

Ingombri lanternata — *Lantern bracket pump Overall dimensions*





FLANGIA ASP. (PN 16 EN 1092-2) *SUCTION FLANGE*						FLANGIA PREM. (PN 40 EN 1092-2) *DISCHARGE FLANGE*					
DNa	CE	CF	DR	zF	iF	DNm	CE	CF	DR	zF	iF
65	185	145	120	8	18	50	165	125	104	4	18

ACCOPPIAMENTO POTENZA - POLARITÀ / GRANDEZZA MOTORE *POWER – POLARITY / MOTOR SIZE COUPLING*															
2POLI	GRAND.	71	80	80	90S	90L	100L	112M	132S	132S	132M	160M	160M	160L	180M
	kW	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	9,2	11	15	18,5	22
4POLI	GRAND.	80	80	90S	90L	100L	100L	112M	132S	132M	132M	160M	160L	180M	180L
	kW	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	9,2	11	15	18,5	22
6POLI	GRAND.	80	90S	90L	100L	112M	132S	132M	132M	160M	160L	180L	-	-	-
	kW	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	11	15	-	-	-

Tipo - *Type*	Grandezza Motore *Motor Size*	DIMENSIONI - *DIMENSION* [mm] Pompa - *Pumps*											T(a)	[a]Peso *Weight*
		DNa	DNm	A	B	D	E	F	G	M	N	P		Kg
40 - 4 / 50 - 4	160M	65	50	310	217	344	200	180	212	250	265	50	1316	226
	160L												1355	239
40 - 5 / 50 - 5	160M	65	50	356	263	390	200	180	212	250	265	50	1362	233
	160L												1401	246
	180M												1415	291
40 - 6 / 50 - 6	160L	65	50	402	309	436	200	180	212	250	265	50	1447	253
	180M												1461	298
40 - 7 / 50 - 7	160M	65	50	448	355	482	200	180	212	250	265	50	1454	247
	160L												1493	260
	180M												1507	305
40-8	160L	65	50	494	401	528	200	180	212	250	265	50	1539	267
	180M												1553	312

Quote e pesi suscettibili di variazione
Dimensions and weights are subject to variations

[a] Quota indicativa può variare in funzione della marca del motore
Not binding dimension that can change according to motor brand

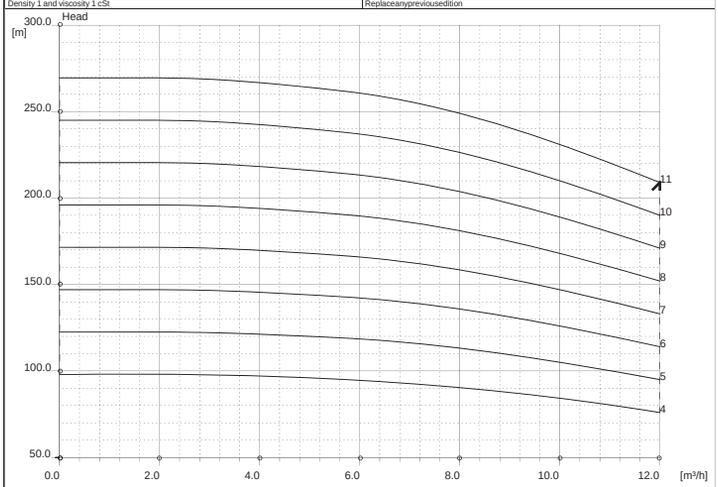
TS 31

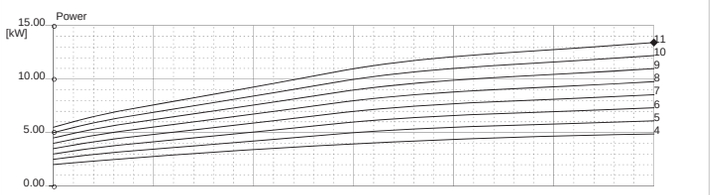
2900 [rpm]
4-11 Stage

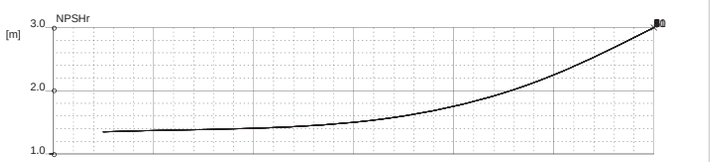
Curve N.
T-1603

Max. diameter	Min. diameter	Maxspeed	Suction Ø	Discharge Ø
138 [mm]	138 [mm]	3500 [rpm]	40 [mm]	32 [mm]

Density 1 and viscosity 1 cSt | Replaceanypreviousedition







Comments

Diffuser	Impeller	NS	SSS	Author	Date	Revision
		3	73		Feb21,2011	

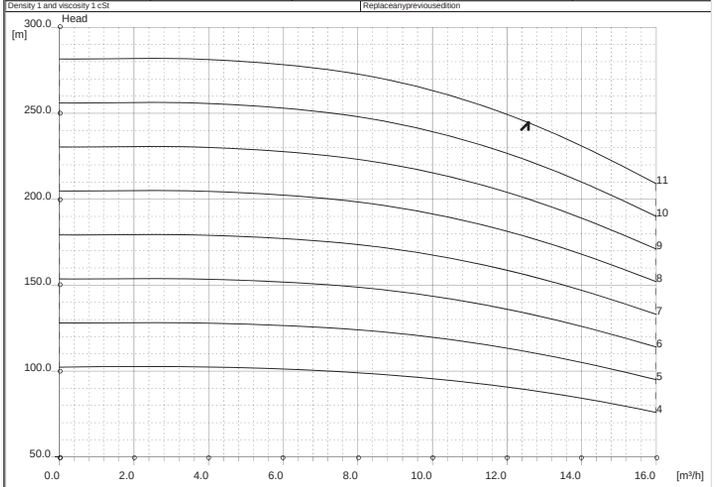
TS 32

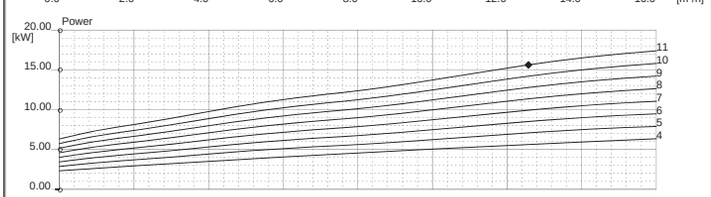
2900 [rpm]
4-11 Stage

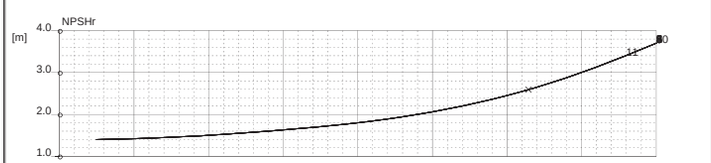
Curve N.
T-1604

Max. diameter	Min. diameter	Maxspeed	Suction Ø	Discharge Ø
138 [mm]	138 [mm]	3500 [rpm]	40 [mm]	32 [mm]

Density 1 and viscosity 1 cSt | Replaceanypreviousedition







Comments

Diffuser	Impeller	NS	SSS	Author	Date	Revision
		3	84		Feb21,2011	

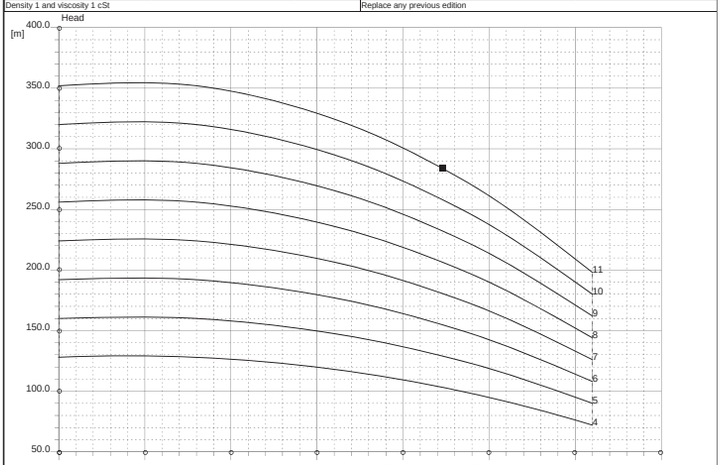
TS 40/

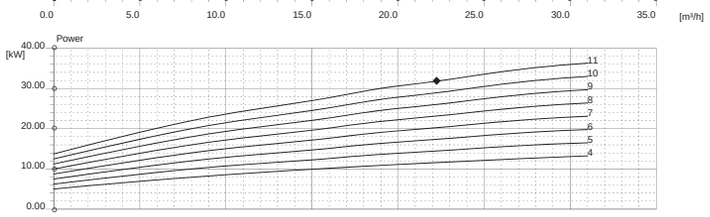
2900 [rpm]
1 Stage

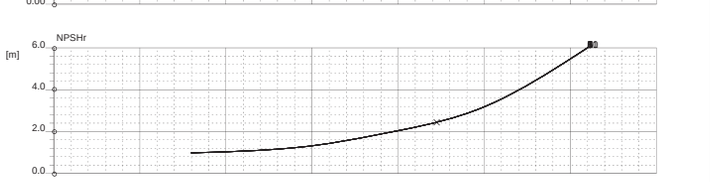
Curve N.
T-1608

Max. diameter	Min. diameter	Maxspeed	Suction Ø	Discharge Ø
155 [mm]	155 [mm]	3500 [rpm]	65 [mm]	50 [mm]

Density 1 and viscosity 1 cSt | Replace any previous edition







Comments

Diffuser	Impeller	NS	SSS	Author	Date	Revision
		20	118		Feb21,2011	

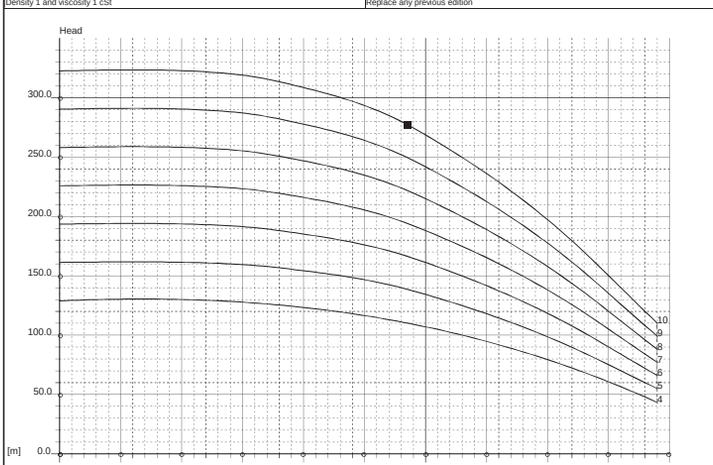
TS 50/

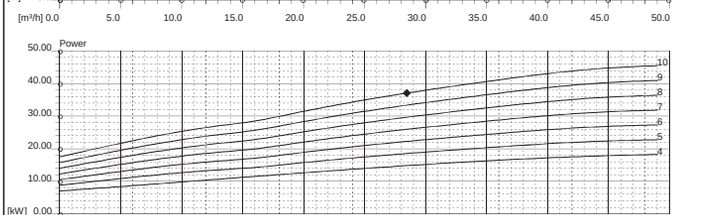
2900 [rpm]
4 - 10 Stage

Curve N.
T-1609

Max. diameter	Min. diameter	Maxspeed	Suction Ø	Discharge Ø
155 [mm]	155 [mm]	3500 [rpm]	65 [mm]	50 [mm]

Density 1 and viscosity 1 cSt | Replace any previous edition







Comments

Diffuser	Impeller	NS	SSS	Author	Date	Revision
		22	188		Feb 24, 2017	