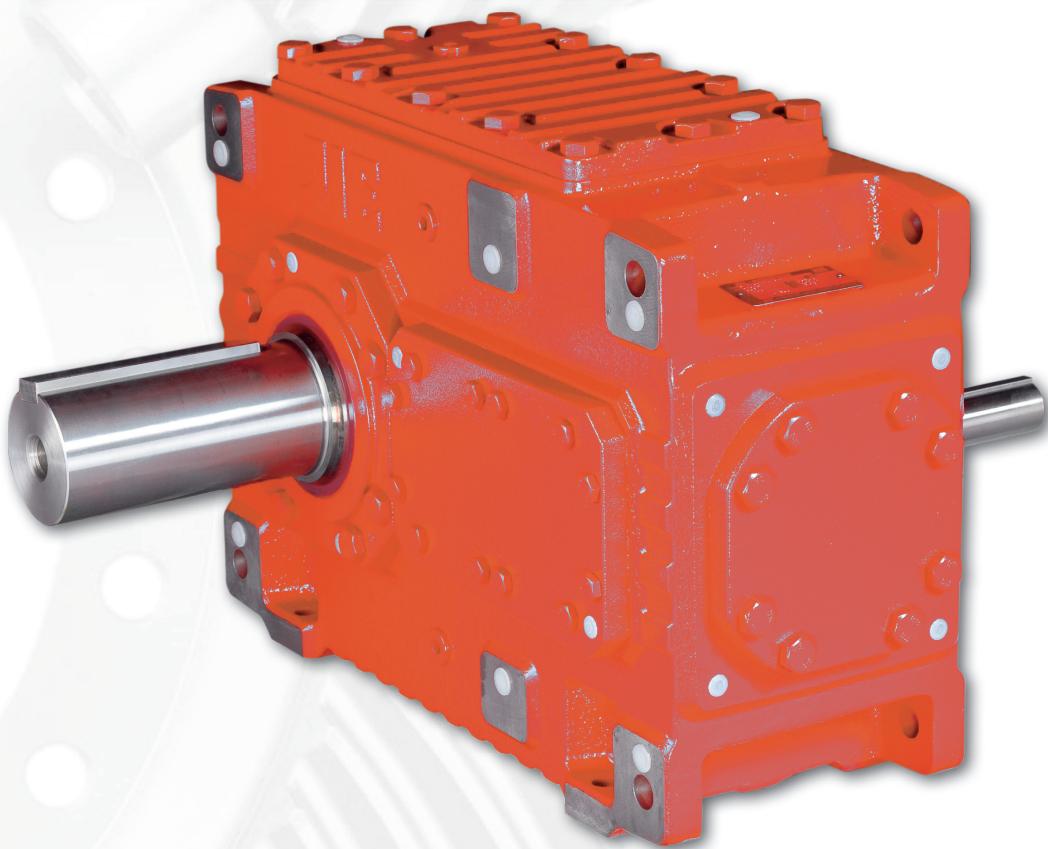


EURO NORM

DRIVE SYSTEMS



JRH HEAVY DUTY TANDWIELKASTEN

Introductie

Met deze kwalitatief hoogwaardige tandwielkasten is een grote mate van bedrijfszekerheid gegarandeerd en ze kunnen toepast worden in zware applicaties, waar grote koppels en vermogens nodig zijn.

Belangrijke eigenschappen

- parallelle en haakse uitvoering
- talrijke opties beschikbaar
- goede kwaliteit/prijsverhouding

Euronorm

Als internationaal opererende toeleveringspartner voorziet Euronorm de markt van aandrijfcomponenten, -systemen en -oplossingen. Euronorm onderscheidt zich door een breed productenpakket aan te bieden op het gebied van mechanische en elektrische aandrijftechniek dat gemakkelijk uitwisselbaar, kwalitatief hoogwaardig en concurrerend geprijsd is.

Direct contact, goed advies en afspraak zijn belangrijk speerpunten van Euronorm. Door haar compacte organisatie is zij in staat haar relaties de aandacht te geven die zij nodig hebben en om in hun (lever)wensen te voorzien. Verder kunnen relaties rekenen op hoogwaardig technisch advies, professioneel testen van prototypes, uitgebreide documentatie en 3D tekeningen.

Euronorm is een betrouwbare toeleveringspartner en heeft veel reductoren, motoren en componenten op voorraad. De meeste aandrijvingen worden in haar assemblagecentrum samengesteld. Hierdoor kan zij een zeer uitgebreid assortiment (klantspecifieke) aandrijvingen met snelle levertijden aanbieden. Verder kan Euronorm in haar werkplaatsen aanpassingen doen zoals het spuiten in alle gewenste kleuren en coatingsystemen, het verlengen aanpassen van assen en het assembleren van samenstellingen.

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1. Belangrijke informatie

- Illustraties dienen alleen als voorbeeld en zijn niet bindend. Afmetingen kunnen variëren.
- Gewichten zijn een gemiddelde waarde en niet bindend.
- Om ongelukken te voorkomen moeten alle draaiende onderdelen worden afgeschermd in overeenstemming met de lokale en nationale veiligheidsvoorschriften.
- Bestudeer de bedieningsvoorschriften alvorens het onderdeel in gebruik te nemen. De tandwielkasten worden bedrijfsklaar, echter zonder olievulling, geleverd.
- De aangegeven vulhoeveelheden zijn slechts richtlijnen. De exacte vulhoeveelheid is afhankelijk van de markeringen op de oliepeilstok.
- De viscositeit van de olie moet overeenkomen met de gegevens op het typeplaatje.
- De reductoren zijn voorzien van radiale asafdichtingen. Andere afdichtingen zijn op verzoek mogelijk.
- De draairichting heeft betrekking op uitgaande as d2.

Gebruikte symbolen

 = Olie peilstok

 = Beluchtingsplug

 = Olie aftapplug

 = Olie filter

1. Important information

- Illustrations are examples only and not strictly binding. Dimensions are subject to change.
- The weights are mean values and not strictly binding.
- To prevent accidents, all rotating parts should be guarded according to local and national safety regulations.
- Prior to commissioning, the operating instructions must be observed. The gear units are delivered ready for operation but without oil filling.
- Oil quantities given are guide values only. The exact quantity of oil depends on the marks on the oil dipstick.
- The oil viscosity has to correspond to the data given on the name plate.
- The gear units are supplied with radial shaft seals. Other sealing variants on request.
- Directions of rotation referring to output shaft d2.

Used symbols

 = Olie dipstick

 = Breather

 = Oil drain

 = Oil filter

2. Producteigenschappen

Het nieuwe modulaire systeem zorgt ervoor dat de behuizing en de onderdelen van de tandwielkast optimaal onderling uitwisselbaar zijn. Hierdoor wordt het aantal verschillende onderdelen verlaagd. De belangrijkste onderdelen kunnen zeer snel worden geleverd. Optimaal ontwerp voor wat betreft belastbaarheid. Zeer betrouwbaar, zeer sterk en zeer efficiënt.

Het geluidsniveau van de tandwielkast is significant verlaagd door het ontwerp van de behuizing aan te passen en de tandwielen te slijpen. Een vierkante behuizing met groter oppervlak en een optioneel verkrijgbare ventilator en koelspiraal hebben het thermisch vermogen van de tandwielkast vergroot.

Diverse montagemogelijkheden en uitgaande assen stellen de klant nog beter in staat de optimale reductor bij haar toepassing te kiezen.

2. Product characteristics

The new modular system ensure housing and internal parts of gear unit high interchangeable and compounding, which significantly reduce the types of parts. Main parts are stocked for short time delivery. Taking optimal design of equal-intensity. High reliability, high loadability and high efficiency.

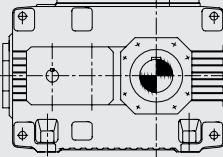
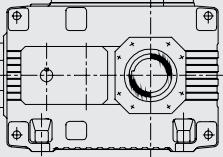
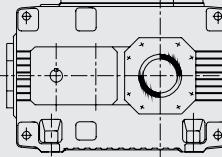
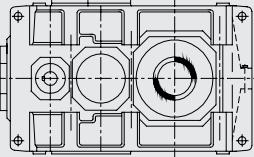
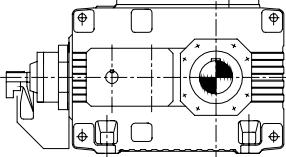
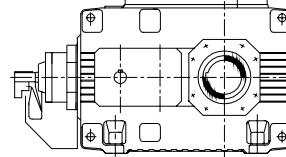
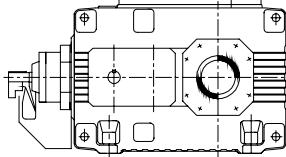
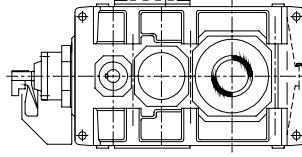
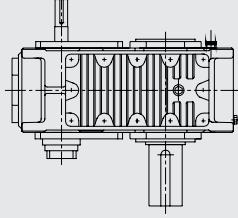
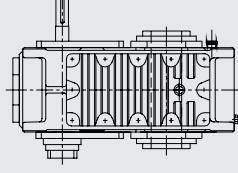
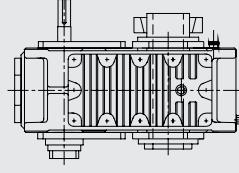
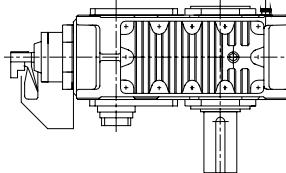
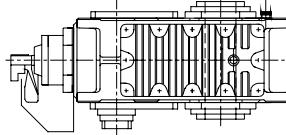
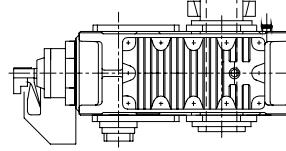
The noise level of the gear unit is significantly reduced by taking the process of bevel gear ground, helical gear tooth profile modified and lower noise optimal design on housing. Square housing, expanding its surface and optional use on fan and cooling pipe have increased the thermal power of the gear unit. Diversification on mounting and output shaft assemblies is in favor of clients on model selection.

3. Uitvoeringen

3.1 Basis uitvoeringen

3. Type description

3.1 Basic types

Horizontale montage positie		Horizontal mounting position	
Parallelle tandwielreductoren Type JRHH1.., JRHH2.., JRHH3.., JRHH4.. 1-4 trappen - iN=1.25-450		Helical gear units Type JRHH1.., JRHH2.., JRHH3.., JRHH4.. 1-4stage - iN=1.25-450	
JRHH.SH	JRHH.HH	JRHH.DH	JRHH.HM,JRHH.DM
			
Kegeltandwielreductoren Type JRHB2.., JRHB3.., JRHB4.. 2-4 trappen - iN=5-400		Bevel-helical gear units Type JRHB2.., JRHB3.., JRHB4.. 2-4stage - iN=5-400	
JRHB.SH	JRHB.HH	JRHB.HH	JRHB.HM,JRHB.DM
			
Verticale montage positie		Vertical mounting position	
Parallelle tandwielreductoren Type JRHH2.V, JRHH3.V, JRHH4.V 2-4 trappen - iN=6.3-450		Helical gear units Type JRHH2.V, JRHH3.V, JRHH4.V 2-4stage - iN=6.3-450	
JRHH.SV	JRHH.HV	JRHH.DV	
			
Kegeltandwielreductoren Type JRHB2.V, JRHB3.V, JRHB4.V 2-4 trappen - iN=5-400		Bevel-helical gear units Type JRHB2.V, JRHB3.V, JRHB4.V 2-4stage - iN=5-400	
JRHH.SH	JRHB.HV	JRHB.DV	
			

3.2 Type codering

J RH H 3 S H 8 – 50 – A

1 2 3 4 5 6 7 8 9

1	Fabrikantcode	2	Productcode	3	Type
					H = parallele tandwielkast B = kegeltandwielkast
4	Aantal trappen	5	Type uitgaande as	6	Montage positie
	1, 2, 3, 4		S - Massieve as H - Holle as D - Holle as met klembus		H--Horizontaal M--Horizontaal zonder voeten V--Verticaal
7	Bouwgrootte (3…28)	8	Overbrengingsverhouding	9	Bouwvorm
					A, B, C, D

Model description

J RH H 3 S H 8 – 50 – A

1 2 3 4 5 6 7 8 9

1	Manufacturer code	2	Product code	3	Type
					H - Helical gear units B - Bevel-helical gear units
4	No.of stages	5	Output shaft design	6	Mounting
	1, 2, 3, 4		S - Solid shaft H - Hollow shaft D - Hollow shaft shrink disk		H - Horizontal M - Horizontal design without feet V - Vertical
7	Size (3…28)	8	Transmission ratio	9	Assemblies
					A, B, C, D

4. Berekening van tandwielkast

4.1 Betekenis symbolen

E_D	= Bedrijfscyclus per uur in % bv. ED 60%/h
f_1	= Factor voor aangedreven machine (tabel 1)
f_2	= Factor voor aandrijfmotor (tabel 2)
f_3	= Factor max. koppel (tabel 3)
$f_{4,5}$	= Thermische factoren (tabel 4, 5)
$f_{6,7}$	= Factor voor hoogte (tabel 6, 7)
f_8	= Factor oliesmering voor verticale tandwielkast tabel 8). Voor horizontale tandwielkast: $f_8=1$
$f_9, f_{10}, f_{11}, f_{12}$	= Thermisch vermogen (tabel 9, 10, 11, 12)
i	= Werkelijke verhouding
i_N	= Nominale verhouding
i_S	= Gevraagde verhouding
n_1	= Ingaand toerental (r/min)
n_2	= Uitgaand toerental (r/min)
P_G	= Benodigd thermisch vermogen
P_{G1}	= Thermisch vermogen voor tandwielkasten zonder extra koeling
P_{G2}	= Thermisch vermogen voor tandwielkasten met ventilatorkoeling
P_{G3}	= Thermisch vermogen voor tandwielkasten met ingebouwde koelspiraal
P_{G4}	= Thermisch vermogen voor tandwielkasten met ingebouwde koelspiraal en ventilator
P_N	= Nominaal vermogen van tandwielkast [kW]
P_2	= Vermogen van aangedreven machine
t	= Omgevingstemperatuur [°C]
T_A	= Max. koppel op ingaande as, bv. piekbelastings-, start- of remkoppel [Nm]
T_{2N}	= Nominaal uitgaand koppel [kNm]

4. Selection of gear box

4.1 Key to symbols

E_D	= Operating cycle per hour in % bv. ED 60%/h
f_1	= Factor for driven machine (table 1)
f_2	= Factor for prime mover (table 2)
f_3	= Peak torque factor (table 3)
$f_{4,5}$	= Thermal factor (table 4,5)
$f_{6,7}$	= Altitude factor (table 6,7)
f_8	= Oil supply factor for vertical gear units (table 8) For horizontal gear units: $f_8=1$
$f_9, f_{10}, f_{11}, f_{12}$	= Thermal capacity (table 9, 10, 11, 12)
i	= Actual ratio
i_N	= Nominal ratio
i_S	= Required ratio
n_1	= Input speed (r/min)
n_2	= Output speed (r/min)
P_G	= Required thermal capacity
P_{G1}	= Thermal capacity for gear units without auxiliary cooling
P_{G2}	= Thermal capacity for gear units with fan cooling
P_{G3}	= Thermal capacity for gear units with built-in cooling coil
P_{G4}	= Thermal capacity for gear units with built-in cooling coil and fan
P_N	= Nominal power rating of gear unit [kW]
P_2	= Power rating of driven machine
t	= Ambient temperature [°C]
T_A	= Max.torque occurring on input shaft, e.g. peakoperating-, starting- or braking torque [Nm]
T_{2N}	= Nominal output torque [kNm]

4.2 Richtlijnen voor bewerking

Richtlijnen voor bewerking			
Stap	Specificatie	Symbol	Bereken parameter
1	Factor voor aan te drijven machine	f_1	Zie tabel 1
2	Factor voor aandrijfmotor	f_2	Zie tabel 2
3	Maximaal toelaatbaar ingaand toerental	n_1	$\leq 1500\text{rpm}$
4	Bouwvorm van ingaande en uitgaande as	JRHH JRHB	JRHH - Parallelle assen JRHB - Haakse assen
5	Bepaal de overbrengingsverhouding	i	$i = n_1 / n_2$
6	Rendement	η	trap 1 = 98%, trap 2 = 96% trap 3 = 94%, trap 4 = 92%
7	Bepaal het nominale vermogen	P_N	$P_N \geq P_2 \cdot f_1 \cdot f_2 / \eta$
8	Bepaal het type uitgaande as		Type uitgaande as en montage positie
9	Controleer de piekbelasting	T_A	$P_N \geq T_A \cdot n_1 \cdot f_3 / 9550$
10	Controleer de kracht op de uitgaande as	F_{R2}	
11	Bepaal de wijze van oliesmering		Horizontaal Mogelijkheden: • Alle te smeren onderdelen liggen in een oliebad of worden door spatten gesmeerd • Geforceerde smering Vertical Mogelijkheden: • Dompelsmering • Geforceerde smering door middel van aangeflensde pomp of motorpomp
12	Bepaal de wijze van koeling		Zonder extra koeling, indien $P_2 \leq P_G \cdot f_4 \cdot f_6 \cdot f_8 \cdot f_9$ Met ventilatorkoeling, indien $P_2 \leq P_{G2} \cdot f_4 \cdot f_6 \cdot f_8 \cdot f_{10}$ Met koelspiraal, indien $P_2 \leq P_{G3} \cdot f_5 \cdot f_7 \cdot f_8 \cdot f_{11}$ Met koelspiraal en ventilator, indien $P_2 \leq P_{G4} \cdot f_5 \cdot f_8 \cdot f_{12}$

4.2 Guidelines for selection

Guidelines for selection			
Step	Specification	Symbol	Calculate parameter
1	Factor for driven machine	f_1	See table 1
2	Factor for prime mover	f_2	See table 2
3	Permissible input speed	n_1	$\leq 1500\text{rpm}$
4	Position of input and output	JRHH JRHB	JRHH - Parallel shaft JRHB - Right angled shaft
5	Determine ratio	i	$i = n_1 / n_2$
6	Efficiency	η	stage 1 = 98%, stage 2 = 96% stage 3 = 94%, stage 4 = 92%
7	Determine nominal power	P_N	$P_N \geq P_2 \cdot f_1 \cdot f_2 / \eta$
8	Determine output mode		Output mode and mounting position
9	Check peak torque	T_A	$P_N \geq T_A \cdot n_1 \cdot f_3 / 9550$
10	Check forces on output shaft	F_{R2}	
11	Determination of oil supply		Horizontal Variations: • All parts to be lubricated are lying in the oil or are splash lubricated • Forced lubrication on request Vertical Variations: • Dip lubrication • Forced lubrication by means of flanged-on pump or motor pump
12	Cooling method		Without auxiliary cooling , if $P_2 \leq P_G \cdot f_4 \cdot f_6 \cdot f_8 \cdot f_9$ With fan cooling, if $P_2 \leq P_{G2} \cdot f_4 \cdot f_6 \cdot f_8 \cdot f_{10}$ With fitted cooling coil, if $P_2 \leq P_{G3} \cdot f_5 \cdot f_7 \cdot f_8 \cdot f_{11}$ With cooling coil and fan, if $P_2 \leq P_{G4} \cdot f_5 \cdot f_8 \cdot f_{12}$

4.3 Voorbeeld berekening

Bekende gegevens

Aandrijfmotor

$P_1 = 75\text{kW}$
 $n_1 = 1500\text{rpm}$
 $T_A = 720\text{Nm}$

Aangedreven machine (transportband)

$P_2 = 66\text{kW}$
 $n_2 = 26\text{rpm}$
bedrijfsduur: 8h/dag
aantal starts: 10starts/uur
bedrijfscyclus: $E_D=100\%$ per uur
omgevingstemperatuur: 30°C
opgesteld in open veld
hoogte: 600m
haakse as
montage positie: horizontaal
uitgaande as: massieve as
as type: C

Berekeningsstappen

1. Bereken overbrengingsverhouding

$$i = n_1/n_2 = 1500/26 = 57.7 \quad i_N=56$$

2. Bepaal nominale vermogen

$$P_N \geq P_2 \cdot f_1 \cdot f_2 / \eta$$

$$P_N = 66 \cdot 1.3 \cdot 1/0.94 = 91.3\text{kW}$$

Selecteer uit selectietabel: JRHB3SH9, met

$$P_N = 96\text{kW}$$

3. Controleer piekbelasting

$$P_N \geq T_A \cdot n_1 \cdot f_3 / 9550$$

$$= 720 \cdot 15000 \cdot 0.65 / 9550 = 73.5\text{kW}$$

$$P_N = 96\text{kW} > 73.5 \quad \text{Waarde voldoet}$$

4. Controleer thermisch vermogen

$$P_{G1} \cdot f_4 \cdot f_8 \cdot f_9$$

$$= 79.4 \cdot 0.87 \cdot 1 \cdot 1 \cdot 1.14$$

$$= 78.7\text{kW}$$

$$P_2 = 66\text{kW} < 78.7\text{kW}$$

Externe koelsystemen zijn niet nodig

Geselecteerde uitvoering:

JRHB3SH9-56-C-00

4.3 Selection example

Known criteria

Prime mover

$P_1 = 75\text{kW}$
 $n_1 = 1500\text{rpm}$
 $T_A = 720\text{Nm}$

Driven machine (belt conveyor)

$P_2 = 66\text{kW}$
 $n_2 = 26\text{rpm}$
service duration: 8h/day
starts per hour: 10times/hour
working circle: $E_D=100\%$ per hour
ambient temperature: 30°C
installed in open field
altitude: 600m
right-angled shaft
mounting mode: horizontal
output shaft: solid shaft
shaft arrangement: C

Selecting steps

1. Calculate ratio

$$i = n_1/n_2 = 1500/26 = 57.7 \quad i_N=56$$

2. Determine nominal power rating

$$P_N \geq P_2 \cdot f_1 \cdot f_2 / \eta$$

$$P_N = 66 \cdot 1.3 \cdot 1/0.94 = 91.3\text{kW}$$

Selected from rating table: JRHB3SH9, with

$$P_N = 96\text{kW}$$

3. Verify peak torque

$$P_N \geq T_A \cdot n_1 \cdot f_3 / 9550$$

$$= 720 \cdot 15000 \cdot 0.65 / 9550 = 73.5\text{kW}$$

$$P_N = 96\text{kW} > 73.5 \quad \text{Meets requirement}$$

4. Verify thermal capacity

$$P_{G1} \cdot f_4 \cdot f_8 \cdot f_9$$

$$= 79.4 \cdot 0.87 \cdot 1 \cdot 1 \cdot 1.14$$

$$= 78.7\text{kW}$$

$$P_2 = 66\text{kW} < 78.7\text{kW}$$

Auxiliary cooling device is unnecessary

Selected model:

JRHB3SH9-56-C-00

4.4 Service factoren / Service factors

Factor voor toepassing van aangedreven machines / Factor for applications of driven machines			Uren dagelijks gebruik Effective daily operating		
	Aangedreven machine / Driven machine		0.5	>0.5-10	>10
	Kantbanken*	Plate bending machines	-	1.0	1.0
	Frequentieregelaars	Frequency inverters	-	1.8	2.0
	Zuigercompressoren	Reciprocating compressors	-	1.8	1.9
	Centrifugaalcompressoren	Centrifugal compressors	-	1.4	1.5
Waterbehandeling Water treatment	Bezinkers (centrale aandrijving)	Thickeners (central drive)	-	-	1.2
	Filterpersen	Filter presses	1.0	1.3	1.5
	Beluchters	Aerators	-	1.8	2.0
	Hark-apparatuur	Raking equipment	1.0	1.2	1.3
	Voorbezinkers	Pre-thickeners	-	1.1	1.3
	Schroefpompen	Screw pumps	-	1.4	1.6
	Waterturbine pompen	Water turbines	1.1	-	2.0
	Centrifugaalpompen	Centrifugal pumps	1.3	1.3	1.5
	Verdringerpompen 1 zuiger	Positive displacement pumps 1 piston		1.4	1.8
	Emmerbanden	Bucket conveyors	-	1.6	1.8
Bagger industrie Dredgers	Rupsaandrijving	Caterpillar travalling gears	1.2	1.6	1.8
	Schoepenradgravers voor opgraven voor grondwerk	Bucket wheel excavators as pick-up for primitive material	-	1.7	1.7
	Snijkoppen	Cutter heads	-	2.2	2.2
	Zwenkaandrijving*	Slewing gears*	-	1.4	1.8
	Extruders	Extruders	-	-	1.6
Chemische industrie Chemical industry	Rubber kalanders	Rubber calenders	-	1.5	1.5
	Koeltrommels	Cooling drums	-	1.3	1.4
	Mixers voor homogene materie	Mixers for uniform media	1.0	1.3	1.5
	Mixers voor niet-homogene materie	Mixers for non-uniform media	1.4	1.6	1.7
	Roerwerken voor homogene materie voor niet-homogene materie voor ongelijkmatige met gasabsorptie	Agitators for media with uniform density non-uniform density non-uniform gas absorption	1.0 1.2 1.4	1.3 1.5 1.6	1.5 1.7 1.8
	Centrifuges	Centrifuges	1.0	1.2	1.3
	Gietpersen	Ingot pushers	1.0	1.2	1.2
	Wikkelmachines	Winding machines	-	1.6	1.6
Metaalbewerking Metal working mills	Koelbedden	Cooling bed transfer frames	-	1.5	1.5
	Uitlooptafels continu bedrijf	Roller tables continuous	-	1.5	1.5
	Uitlooptafels intermitterend bedrijf	Roller tables intermittent	-	2.0	2.0
	Cilindermolens	Reversing tube mills	-	1.8	1.8
	Knipbanken continu bedrijf	Shears continuous	-	1.5	1.5
	Knipbanken tuimelaar	Shears crank type	1.0	1.0	1.0
	Gietmachine	Continuous casting drivers	-	1.4	1.4
	Aandrijving walshoogte	Roll adjustment drives	0.9	1.0	-
	Treklieren	Hauling winches	1.4	1.6	1.8
	Takels	Hoists	-	1.5	1.8
Transporteurs Conveyors	Transportbanden tot 150 kW	Belt conveyors < 150kW	1.0	1.3	1.5
	Transportbanden vanaf 150 kW	Belt conveyors ≥ 150kW	1.1	1.3	1.6
	Goederenliften	Goods lifts	-	1.2	1.5
	Personenliften	Passenger lifts	-	1.5	1.8
	Platenbanden	Apron conveyors	-	1.3	1.6
	Roltrappen	Escalators	1.0	1.2	1.4
	Zwenkaandrijving	Slewing gears	1.0	1.4	1.8
	Wipaandrijving	Luffing gears	1.0	1.1	1.4
	Rijaandrijving	Travelling gears	1.1	1.6	2.0
	Lieraandrijving	Hoisting gears	1.0	1.2	1.5
Voedings industrie Food industry	Productie met rietsnijders	Production with cane knives	-	-	1.7
	Productie met rietmolens	Production with cane mills	-	-	1.7
	Bieten pulpvermalers	Beet cossettes macerators	-	-	1.2
	Bieten extractiemachines	Beet extraction plants	-	-	1.2
	Mechanische koelers	Mechanical refrigerators	-	-	1.2
	Fruitkokers	Juice boilers	-	-	1.2
	Suikerbetsnijders	Sugar beet cutters	-	-	1.5
	Kabelbanen	Cableways			
Kabelbannen Cableways	Materiaalbanen	Material ropeways	-	1.3	1.4
	Gondelbanen	To- and fro-system aerial ropeways	-	1.6	1.8
	Sleepliften	T-bar lifts	-	1.3	1.4
	Roterende kabelbanen	Continuous ropeways	-	1.4	1.6
	Betonmixers	Concrete mixers	-	1.5	1.5
Steen industrie Cement	Brekers	Breakers	-	1.2	1.4
	Roterende ovens	Rotary kilns	-	-	2.0
	Mengtrommels	Tube mills	-	-	2.0
	Scheidlers	Separators	-	1.6	1.6
	Puinbrekers	Roll crushers	-	-	2.0

1. Bepaling van het vermogen van aangedreven machine P2

*) Vermogen komt overeen met maximum koppel

**) Belasting kan exact worden bepaald.

***) Het thermische vermogen dient gecontroleerd te worden.

2. De vermelde factoren zijn empirisch bepaald.
De opgegeven factoren kunnen gebruikt worden in de veronderstelling dat de vermelde apparaten toegepast worden zoals dit in het algemeen gebruikelijk is met overeenkomende specificaties.
Neem bij twijfel of afwijkende specificaties contact met ons op.

3. Neem voor apparaten die niet in deze tabel vermeld staan contact met ons op.

1. Design for power rating of driven machine P2

*) Designed power corresponding to max. torque

**) Load can be exactly classified

***) Check of thermal capacity is absolutely essential

2. The listed factors are empirical values. Prerequisite for their application is that the machinery and equipment mentioned correspond to generally accepted design and load specifications. In case of deviations from standard conditions, please refer to us

3. For driven machines which are not listed in this table, please refer to us.

Tabel 2 Table 2

Factor aandrijfmotor <i>Factor prime mover</i>	f_2
Elektrische motoren, hydromotoren en turbines <i>Electric motors, hydraulic motors, turbines</i>	1.0
Verbrandingsmotoren 4-6 cilinders, toerenveld 1:100 tot 1: 200 <i>Piston engines 4-6 cylinders, cyclic variation 1:100 to 1:200</i>	1.25
Verbrandingsmotoren 1-3 cilinders, toerenveld 1:100 <i>Piston engines 1-3 cylinders, cyclic variation 1:100</i>	1.5

Tabel 3 Table 3

Factor piekkoppel <i>Peak torque factor</i>	f_3
Belastingsrichting <i>Direction of load</i>	Aantal piekbelastingen per uur <i>Load peaks per hour</i>
Zelfde draairichting <i>Steady direction</i>	1-5 6-30 31-100 >100
Wisselende draairichting <i>Alternating direction</i>	0.5 0.65 0.7 0.85

Tabel 4 Table 4

Thermische factor zonder externe koeling <i>Thermal factor without auxiliary cooling or with fan</i>					f_4
Omgeving <i>Ambient</i>					Bedrijfscyclus per uur (ED) in % <i>Operating cycle per hour (ED) in %</i>
10°C					100 80 60 40 20
10°C	1.14	1.20	1.32	1.54	2.04
20°C	1.00	1.06	1.16	1.35	1.79
30°C	0.87	0.93	1.00	1.18	1.56
40°C	0.71	0.75	0.82	0.96	1.27
50°C	0.55	0.58	0.64	0.74	0.98

Tabel 5 Table 5

Thermische factor met koelspiraal, of fan en spiraal <i>Thermal factor with cooling coil, or fan and cooling coil</i>					f_5
Omgeving <i>Ambient</i>					Bedrijfscyclus per uur (ED) in % <i>Operating cycle per hour (ED) in %</i>
10°C					100 80 60 40 20
10°C	1.04	1.10	1.21	1.40	1.86
20°C	1.00	1.06	1.16	1.35	1.79
30°C	0.93	0.99	1.08	1.26	1.66
40°C	0.88	0.93	1.02	1.19	1.58
50°C	0.81	0.86	0.94	1.09	1.45

Tabel 6 Table 6

Hoogte factor zonder externe koeling <i>Altitude factor without auxiliary cooling or with fan</i>					f_6
Hoogte (meters boven NAP) <i>Altitude (meters above MSL)</i>					
1000	2000	3000	4000	5000	
1.0	0.95	0.9	0.85	0.8	

Tabel 7 Table 7

Hoogte factor zonder externe koeling <i>Altitude factor without auxiliary cooling or with fan</i>					f_7
Hoogte (meters boven NAP) <i>Altitude (meters above MSL)</i>					
1000	2000	3000	4000	5000	
1.0	0.98	0.96	0.94	0.92	

Tabel 8 Table 8

Oliesmeer factor voor verticaal opgestelde tandwielkasten. <i>Oil supply factor for vertical gear units.</i>										f_8
Voor horizontaal opgestelde kasten $f_8=1.0$, en bij toepassing van geforceerde smering $f_8=1.05$ <i>For horizontal gear units $f_8=1.0$, and in case of forced lubrication $f_8=1.05$</i>										
Bouwgrootte Gear type Olie smering Oil supply Bouwgrootte 4...12 Sizes 4...12 Bouwgrootte 13...18 Sizes 13...18										
Bouwgrootte Gear type Olie smering Oil supply Zonder externe koeling Met koelwaaier Met koelspiraal Met koelwaaier en koelspiraal Zonder externe koeling Met koelwaaier Met koelspiraal Met koelwaaier en koelspiraal										
Without auxiliary cooling With fan With cooling coil With fan and cooling coil Without auxiliary cooling With fan With cooling coil With fan and cooling coil										
JRHH2.V	Dompel smering <i>Dip lubrication</i>	0.95	*****	0.95	*****	*****	*****	*****	*****	*****
JRHH3.V	Geforc. smering <i>Forced lubrication</i>	1.15	*****	1.05	*****	1.15	*****	1.05	*****	*****
JRHH4.V	Dompel smering <i>Dip lubrication</i>	0.95	0.95	0.95	0.95	*****	*****	*****	*****	*****
JRHH2.V	Dompel smering <i>Dip lubrication</i>	0.95	0.95	0.95	0.95	1.10	1.15	1.10	1.10	1.10
JRHH3.V	Geforc. smering <i>Forced lubrication</i>	1.15	0.10	1.10	1.10	1.15	1.10	1.10	1.10	1.10
JRHH4.V	Geforc. smering <i>Forced lubrication</i>	1.15	0.10	1.10	1.10	1.15	1.10	1.10	1.10	1.10

Tabel 9 Table 9

Thermisch vermogen van tandwielkasten zonder externe koeling Thermal capacity factor for gear units without auxiliary cooling													f₉	
Bouw-grootte Gear type	n rpm	Ratio i	Kleine ruimtes Small confined spaces				Grote bedrijfsruimtes Large halls workshops				Buiten opstelling In the open			
			3...6	7...12	13...18	19...28	3...6	7...12	13...18	19...28	3...6	7...12	13...18	19...28
JRHH1SH	750	1.25..2 2.24..5.6	0.54 0.60	0.51 0.58	- 0.55	0.50	0.69 0.73	0.66 0.71	0.68 0.67	- 0.67	0.9 0.9	0.9 0.9	0.9 0.9	0.9
	1000	1.25..2 2.24..5.6	0.50 0.62	0.53 0.48	- -	-	0.65 0.77	0.57 0.68	- 0.59	0.45	0.89 0.96	0.81 0.89	0.81 0.89	- 0.70
	1500	1.25..2 2.24..3.55 4..5.6	0.39 0.50 0.67	- - 0.47	- - -	- - 0.84	0.57 0.8 0.84	- 0.50 0.62	- - -	- - 1.07	0.83 0.94 0.86	- 0.77 0.86	- - 0.68	- - -
JRHH2..	750	5..9 10..28	0.63 0.67	0.55 0.65	0.57 0.64	0.57 0.65	0.77 0.79	0.72 0.78	0.70 0.77	0.72	0.95 0.95	0.95 0.95	0.95 0.95	0.95
	1000	5..9 10..28	0.63 0.71	0.51 0.65	0.48 0.63	- 0.60	0.79 0.86	0.66 0.80	0.62 0.76	- 0.73	1.01 1.05	0.90 1.01	0.86 1.01	0.92 0.94
JRHB2..	1500	5..6..3 10..16 18..28	0.53 0.71 0.77	- 0.53 0.66	- 0.51 0.60	- 0.94	0.72 0.78 0.84	0.56 0.59 0.64	- 0.67 0.74	- 0.65	1.00 1.05 1.18	0.84 0.83 1.14	- 0.77 0.93	- 0.77 0.88
	750	12.5..112	0.67	0.67	0.67	0.67	0.79	0.79	0.79	0.78	0.95	0.95	0.95	0.95
	1000	12.5..112	0.72	0.70	0.67	0.67	0.86	0.85	0.82	0.80	1.04	1.04	1.02	1.00
JRHB3..	1500	12.5..31.5 35.5..56 63..112	0.73 0.79 0.83	0.59 0.74 0.83	0.51 0.66 0.80	0.50 0.61 0.77	0.91 0.95 0.98	0.80 0.89 0.98	0.64 0.67 0.95	0.62 0.77 0.92	1.15 1.17 1.18	1.05 1.14 1.18	0.90 1.06 1.17	0.84 1.02 1.14
	750	80..450	0.71	0.72	0.73	0.73	0.84	0.85	0.85	0.85	1.00	1.00	1.00	1.00
JRHH4..	1000	80..450	0.76	0.77	0.78	0.78	0.90	0.91	0.91	0.91	1.09	1.09	1.09	1.09
	1500	80..112 125..450	0.79 0.84	0.82 0.86	0.80 0.85	0.72 0.85	0.98 1.01	0.99 1.02	0.98 1.01	0.98 1.01	1.21 1.23	1.21 1.23	1.21 1.23	1.21 1.23

Tabel 10 Table 10

Thermisch vermogen van tandwielkasten met koelwaaier Thermal capacity factor for gear units with fan													f₁₀	
Bouwgrootte Gear type	n rpm	Ratio i	Kleine ruimtes Small confined spaces				Grote bedrijfsruimtes Large halls workshops				Buiten opstelling In the open			
			3...6	7...12	13...18	19...28	3...6	7...12	13...18	19...28	3...6	7...12	13...18	19...28
JRHH1SH	750		0.88	0.91	0.96	0.96	0.91	0.93	0.97	0.97	0.98	0.98	0.98	0.98
JRHH2..JRHH3..	1000	1.25..112	1.05	1.10	1.13	1.15	1.08	1.12	1.14	1.14	1.15	1.16	1.16	1.16
JRHB2..JRHB3..	1500		1.39	1.44	1.43	1.42	1.41	1.45	1.43	1.42	1.47	1.48	1.45	1.44

Tabel 11 Table 11

Thermisch vermogen van tandwielkasten met koelspiraal Thermal capacity factor for gear units with fan													f₁₁	
Bouwgrootte Gear type	n rpm	Ratio i	Kleine ruimtes Small confined spaces				Grote bedrijfsruimtes Large halls workshops				Buiten opstelling In the open			
			4...6	7...13	14...16	17...18	4...6	7...13	14...16	17..18	4...6	7...13	14...16	17..18
JRHH1SH	750		0.82	0.85	0.84	0.87	0.89	0.90	0.90	0.91	0.98	0.98	0.98	0.98
JRHH2..	1000	1.25..28	0.92	0.98	0.94	0.94	1.02	1.03	1.00	1.00	1.12	1.12	1.08	1.07
JRHB2..	1500		1.10	1.12	0.99	0.93	1.21	1.20	1.05	1.00	1.34	1.30	1.14	1.08
JRHH3..	750		0.84				0.90				0.98			
JRHB3..	1000	1.25..112	0.96				1.04				1.12			
	1500		1.18				1.28				1.38			

Tabel 12 Table 12

Thermisch vermogen van tandwielkasten met koelwaaier en koelspiraal Thermal capacity factor for gear units with fan and cooling coil													f₁₀	
Bouwgrootte Gear type	n rpm	Ratio i	Kleine ruimtes Small confined spaces				Grote bedrijfsruimtes Large halls workshops				Buiten opstelling In the open			
			4...6	7...12	13...18	4...6	7...12	13...18	4...6	7...12	13...18	4...6	7...12	13...18
JRHH1SH	750	1.25..112	0.91	0.95	0.96	0.94	0.96	0.97	0.98	0.98	0.98	0.98	0.98	0.98
JRHH2..JRHH3..	1000		1.11	1.16	1.13	1.13	1.17	1.17	1.17	1.17	1.19	1.19	1.18	
JRHB2..JRHB3..	1500		1.50	1.55	1.43	1.51	1.56	1.51	1.55	1.57	1.51	1.55	1.51	1.51

*) Windsnelheid ≤ 1m/s is externe koeling benodigd

**) Windsnelheid ≥ 2m/s

***) Windsnelheid ≥ 4m/s

*) Wind velocity ≤ 1m/s require auxiliary cooling

**) Wind velocity ≥ 2m/s

***) Wind velocity ≥ 4m/s

5. Selectietabellen / Technical data

Parallelle tandwielkasten

Nominaal vermogen

Type JRHH1.., JRHH2..

Bouwgrootte 3 - 19

Helical gear units

Nominal power ratings

Type JRHH1.., JRHH2..

Sizes 3 - 19

Nominaal vermogen											Nominal Power Ratings									
i_N	n_1 r/min	n_2	Grootte tandwielkast								Gear unit Sizes									
			3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1.25	1500	1200	364		1005		1909		3103											
	1000	800	242		670		1273		2069											
	750	600	182		503		955		1552											
1.4	1500	1071	347		919		1783		2870											
	1000	714	231		613		1189		1913											
	750	536	174		460		892		1435											
1.6	1500	938	324		844		1600		2661		4518									
	1000	625	215		563		1067		1774		3012									
	750	469	162		422		800		1331		2259									
1.8	1500	833	235		767		1517		2442		4151									
	1000	556	157		511		1011		1628		2767									
	750	417	118		384		759		1221		2076									
2	1500	750	219		738		1517		2442		4151		6191							
	1000	500	146		492		1011		1628		2767		4127							
	750	375	110		369		759		1221		2076		3095							
2.24	1500	670	196		673		1248		2013		3549		6330							
	1000	446	130		449		832		1342		2366		4220							
	750	335	98		337		624		1007		1775		3165							
2.5	1500	600	182		603		1118		1803		3179		4837		7350					
	1000	400	121		402		745		1202		2119		3225		4900					
	750	300	91		302		559		902		1590		2419		3675					
2.8	1500	536	173		538		959		1526		2839		4321		6728					
	1000	357	115		359		639		1017		1893		2881		4485					
	750	268	87		269		480		763		1420		2161		3364					
3.15	1500	476	154		478		867		1400		2397		3643		6174					
	1000	317	102		319		578		933		1598		2429		4116					
	750	238	77		239		434		700		1199		1822		3087					
3.55	1500	423	141		420		788		1266		2223		3295		5580					
	1000	282	94		280		525		844		1482		2197		3720					
	750	211	71		210		394		633		1112		1648		2790					
4	1500	375	125		376		698		1126		1986		2972		5105		6792			
	1000	250	83		251		465		751		1324		1981		3403		4528			
	750	188	63		188		349		563		993		1486		2552		3396			
4.5	1500	333	87	220	268		550		857		1603		2147		3800		5090			
	1000	222	58	146	179		367		571		1069		1431		2533		3393			
	750	167	44	110	134		275		429		802		1074		1900		2545			
5	1500	300	75	198	226		433		738		1215		1831		2984		3895		5465	
	1000	200	50	132	151		289		492		810		1221		1989		2597		3643	
	750	150	38	99	113		217		369		608		916		1492		1948		2732	
5.6	1500	268	64	178	193		367		564		1024		1554		2536		3311		4209	
	1000	179	43	118	129		245		376		683		1036		1691		2207		2806	
	750	134	32	88	97		184		282		512		777		1268		1656		2105	

 Geforceerde oliesmering noodzakelijk bij horizontaal opgestelde tandwielkasten

 Forced lubrication required on horizontal gear units

Parallelle tandwielkasten

Thermisch vermogen

Type JRHH1.., JRHH2..

Bouwgrootte 3 - 19

Helical gear units

Thermal capacities

Type JRHH1.., JRHH2..

Sizes 3 - 19

			Thermisch vermogen Thermal Capacities																	
i_N			Grootte tandwielkast								Gear unit Sizes									
			3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
			Thermische capaciteit P_G (in kW) afhankelijk van soort koeling; P_{G1} : zonder externe koeling, P_{G2} : ventilator koeling, P_{G3} : koelspiraal, P_{G4} : ventiaal en spiraalkoeling. Thermal capacity P_G (in kW) dependent on kind of cooling; P_{G1} : without auxiliary cooling, P_{G2} : fan cooling, P_{G3} : cooling coil, P_{G4} : fan and cooling coil.																	
1.25	PG1																			
	PG2	210		372		408			1276											
	PG3	307		686		946			1991											
	PG4	472		1117		1537														
1.4	PG1																			
	PG2	212		392		447			375											
	PG3	299		680		937			1285											
	PG4	459		1104		1523			1992											
1.6	PG1																			
	PG2	213		420		500			495											
	PG3	284		655		894			1276			1944		2060						
	PG4	438		1063		1452			1982			3039		3187						
1.8	PG1																			
	PG2	241		435		554			575			1990		2161						
	PG3	309		625		894			1259			3106		3328						
	PG4	478		1019		1450			1953											
2	PG1																			
	PG2	234		427		553			590			509		2161		1626				
	PG3	295		593		852			1207			1947		3313		2826				
	PG4	455		964		1382			1873			3026								
2.24	PG1																			
	PG2	227		422		544			620			631		2172		1719				
	PG3	278		558		779			1151			1902		3336		2963				
	PG4	431		913		1264			1790			2964								
2.5	PG1																			
	PG2	211		405		525			614			676		2102		1746				
	PG3	251		518		723			1075			1810		3228		2972				
	PG4	388		848		1172			1674			2819								
2.8	PG1	50		384		553			658			705		2002		1748				
	PG2	199		475		733			1091			1698		3075		2947		1836		
	PG3	231		777		1189			1695			2647					3087			
	PG4	359																		
3.15	PG1	63.8		415		702			828			1055		1033		816				
	PG2	200		481		881			1237			1858		2221		2223		2487		
	PG3	226		779		1442			1941			2879		3394		3634		4035		
	PG4	348																		
3.55	PG1	59.8		407		649			778			998		1014		860		678		
	PG2	183		460		791			1124			1685		2042		2087		2387		
	PG3	204		746		1301			1768			2617		3123		3397		3839		
	PG4	314																		
4	PG1	56.2		374		591			677			964		1012		938		821		
	PG2	166		410		696			937			1534		1870		1943		2263		
	PG3	181		665		1147			1483			2387		2866		3159		3625		
	PG4	280																		
4.5	PG1	66.4		389		611			795			994		1193		1261		1192		
	PG2	180		413		696			1049			1489		1992		2075		2382		
	PG3	194		669		1137			1646			2330		3062		3339		3779		
	PG4	298																		
5	PG1	62.5		373		599			738			1020		1227		1395		1560		
	PG2	165		390		659			930			1427		1911		2022		2660		
	PG3	173		1080		1464			1464			2242		2942		3255		4202		
	PG4	266																		
5.6	PG1	56		330		535			704			967		1104		1266		1433		
	PG2	146		337		577			866			1337		1675		1787		2367		
	PG3	151		548		949			1370			2106		2586		2880		3741		
	PG4	232																		

Parallelle tandwielkasten

Nominaal vermogen

Type JRHH2.. en JRHH3..

Bouwgroote 4 - 28

Helical gear units

Nominal power ratings

Type JRHH2.. and JRHH3..

Sizes 4 - 28

			Nominaal vermogen												Nominal Power Ratings																									
i_N	n ₁ r/min	n ₂	Grootte tandwielkast												Gear unit Sizes																									
			3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28												
Nominaal vermogen P _{N¹} , kW																																								
6.3	1500	238	82	157	266		505		839		1477		2143		3563		4859		7292																					
	1000	159	55	105	177		337		559		985		1429		2375		3239		4861																					
	750	119	41	78	133		253		420		739		1072		1782		2430		3646							6233		9973												
7.1	1500	211	73	139	247		448		744		1310		1900		3159	3535	4308	5093	6467	7419																				
	1000	141	49	93	165		299		496		873		1267		2106	2357	2872	3395	4311	4946																				
	750	106	37	70	124		224		372		655		950		1580	1768	2154	2546	3233	3710							5752	6250	9125	10066										
8	1500	188	65	131	220	265	399	503	663	830	1167	1452	1692	2106	2815	3149	3838	4527	5732	6576																				
	1000	125	43	88	147	177	266	335	442	553	778	968	1128	1404	1877	2099	2559	3018	3821	4384																				
	750	94	32	66	110	133	200	252	332	415	584	726	846	1053	1408	1575	1919	2264	2866	3288							5301	5743	8442	9228	10357									
9	1500	167	58	117	195	251	354	447	589	737	1036	1290	1503	1871	2500	2797	3409	4021	5090	5840																				
	1000	111	38	78	130	167	236	298	393	491	691	860	1002	1247	1667	1865	2273	2681	3393	3893	4765																			
	750	83	29	58	98	126	177	224	295	369	518	645	752	936	1250	1399	1705	2011	2545	2920	3574							4843	5323	7504	8595	9468	10515							
10	1500	150	52	99	164	226	318	402	529	662	931	1159	1350	1680	2246	2513	3062	3612	4586	5261																				
	1000	100	34	66	109	151	212	268	353	441	621	773	900	1120	1497	1675	2041	2408	3057	3507	4293	4795																		
	750	75	26	49	82	113	159	201	265	331	466	580	675	840	1123	1257	1531	1806	2293	2630	3220	3596	4516	4908	6754	8010	8874	9738												
11.2	1500	134	46	88	148	202	284	359	472	592	832	1035	1206	1501	2006	2245	2736	3227	4097	4700																				
	1000	89	31	59	99	135	189	239	315	395	555	690	804	1001	1337	1497	1824	2151	2731	3133	3820	4268	5376																	
	750	67	23	44	74	101	142	180	236	296	416	518	603	751	1003	1123	1368	1614	2049	2350	2865	3201	4032	4523	6030	7222	8239	9010												
12.5	1500	120	41	84	140	169	253	321	423	530	745	927	1080	1344	1796	2010	2450	2890	3669	4209																				
	1000	80	28	56	93	113	169	214	282	353	497	618	720	896	1197	1340	1633	1927	2446	2806	3434	3836	5026	5445																
	750	60	21	42	70	85	127	161	212	265	373	464	540	672	898	1005	1225	1445	1835	2105	2576	2877	3770	4084	5403	6471	7602	8419												
14	1500	107	37	75	125	151	227	286	377	472	664	826	963	1198	1602	1792	2184	2576	3271	3753	4593																			
	1000	71	24	50	83	101	151	191	251	315	443	551	642	799	1068	1195	1456	1717	2181	2502	3048	3405	4637	5049																
	750	54	18	38	63	76	114	143	189	236	332	413	482	599	801	896	1092	1288	1636	1877	2286	2554	3478	3786	4824	5778	6900	7713												
16	1500	94	32	66	110	141	199	250	331	415	583	726	846	1053	1407	1574	1919	2263	2874	3297	4035	4508																		
	1000	63	22	44	73	94	133	167	221	277	389	484	564	702	938	1049	1279	1509	1916	2198	2704	3021	4188	4548																
	750	47	16	33	55	71	100	125	166	208	292	363	423	527	704	787	960	1132	1437	1649	2028	2266	3151	3411	4221	5056	6037	6872												
18	1500	83	29	55	91	125	165	222	292	366	515	641	747	929	1242	1390	1694	1998	2537	2911	3563	3980																		
	1000	56	19	37	61	83	110	148	195	244	343	427	498	619	828	927	1129	1332	1691	1941	2404	2685	3723	4218																
	750	42	14	28	46	63	83	111	146	183	258	321	374	465	621	695	847	999	1269	1456	1803	2014	2792	3163	3752	4494	5366	6108												
20	1500	75	26	52	87	113	149	201	264	331	465	579	675	840	1123	1256	1531	1806	2293	2630	3219	3596																		
	1000	50	17	35	58	75	99	134	176	221	310	386	450	560	749	837	1021	1204	1529	1753	2146	2397	3063	3796																
	750	38	13	26	44	57	75	101	132	166	233	290	338	420	562	628	766	903	1147	1315	1610	1798	2297	2847	3314	4045	4516	5497												
22.4	1500	67	23	44	76	94	138	168	232	296	409	517	617	750	1073	1122	1403	1613	2104	2350	2946	3213																		
	1000	45	15	30	51	63	92	112	155	197	273	345	411	500	715	748	935	1075	1403	1567	1979	2158	2805	3085	4020	3829	5750													
	750	33	11	22	38	47	69	84	116	148	205	259	309	375	537	561	702	807	1052	1175	1484	1619	2104	2314	3015	2190	4312	4593												
25	1500	60					72	89	136	150	224	265	398	463	552	672	961	1086	1256	1507	1884	2167	2638	2952																
	1000	40					48	59	91	100	149	177	265	309	368	448	641	724	837	1005	1256	1445	1759	1968	2597	2827	3602	4314	5152	5864										
	750	30					36	45	68	75	112	133	199	232	276	336																								

Parallelle tandwielkasten

Thermisch vermogen

Type JRHH2.. en JRHH3..

Bouwgrootte 4 - 28

Helical gear units

Thermal capacities

Type JRHH2.. and JRHH3..

Sizes 4 - 28

		Thermisch vermogen																		Thermal Capacities																	
		Grootte tandwielkast																		Gear unit Sizes																	
i _N		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28										
Thermische capaciteit P _G (in kW) afhankelijk van soort koeling; P _{G1} : zonder externe koeling, P _{G2} : ventilator koeling, P _{G3} : koelspiraal, P _{G4} : ventilaror en spiraalkoeling. Thermal capacity P _G (in kW) dependent on kind of cooling; P _{G1} : without auxiliary cooling, P _{G2} : fan cooling, P _{G3} : cooling coil, P _{G4} : fan and cooling coil.																																					
6.3	P _{G1} P _{G2} P _{G3} P _{G4}	48.5 132 146 210	48.8 172 226 327		256 357 525		322 542 774		428 746 1124		442 1197 1739		1267 1824		1410 1410 2151 2151																						
7.1	P _{G1} P _{G2} P _{G3} P _{G4}	51.6 137 148 214	53.9 177 226 327		252 338 499		323 516 735		453 740 1117		493 1193 1728		338 1289 1305 1851 1880		1458 1458 1443 2199 2199																						
8	P _{G1} P _{G2} P _{G3} P _{G4}	51.4 132 140 202	56.4 175 219 316	59.2 191 236 341	64.9 249 323 479	276 367 496	322 545 707	328 720 1088	469 961 1397	501 1171 1700	537 1319 1923	580 1306 1860	422 1332 1910	390 1507 2261	542 1507 1500 2260																						
9	P _{G1} P _{G2} P _{G3} P _{G4}	52.4 129 135 196	60.5 174 211 303	67.8 198 238 344	73.2 248 311 458	86.3 324 477 518	77.2 327 477 682	86.3 600 1088 1405	484 686 1033	553 968 1405	600 1159 1679	666 1335 1927	541 1332 1889	530 1386 1970	584 1593 2360	542 1593 1608 2400																					
10	P _{G1} P _{G2} P _{G3} P _{G4}	51.4 123 126 182	61.1 165 196 282	70.9 196 230 331	77.7 241 295 436	84.2 320 338 436	96 335 453 648	95.3 489 503 710	135 577 657 987	631 715 943 1375	715 612 1128 1628	617 710 1281 1896	710 710 1309 1861	710 710 1316 1964	691 1611 1611 2374	691 1649 1649 2447																					
11.2	P _{G1} P _{G2} P _{G3} P _{G4}	50.4 118 120 174	61.2 160 185 268	72.2 191 221 319	83.4 246 294 436	88 309 321 475	99.9 327 427 610	103 331 479 679	119 509 662 995	119 572 882 1283	119 674 1135 1642	738 738 1274 1838	648 648 1269 1796	669 784 1354 1913	784 784 1582 2323	787 1651 1651 2431																					
12.5	P _{G1} P _{G2} P _{G3} P _{G4}	49.5 113 116 166	62.1 157 183 263	70.5 181 204 295	85.6 242 289 425	88.3 305 305 450	104 322 415 589	106 503 454 644	135 657 837 978	149 742 1056 1218	160 742 1215 1523	193 685 1272 1755	193 691 1327 1790	193 851 1579 2111	840 1605 1605 2355																						
14	P _{G1} P _{G2} P _{G3} P _{G4}	47.6 108 108 155	60.4 150 171 243	69.5 174 193 279	81.7 224 259 384	91.2 310 393 449	106 494 425 562	108 503 425 603	142 647 991 914	153 647 991 1223	160 742 1215 1434	193 685 1272 1761	193 851 1579 1697	906 1511 1511 1832	906 1600 1600 2211																						
16	P _{G1} P _{G2} P _{G3} P _{G4}	44.1 98.9 98.1 141	57.8 140 157 225	69.8 169 191 273	78.6 257 297 352	94.9 281 363 438	104 303 414 584	110 469 561 839	144 583 827 839	169 603 887 1197	160 603 887 1286	193 751 1125 1197	193 721 1226 1626	721 873 1429 1684	873 873 1429 2088	919 919 1528 2236																					
18	P _{G1} P _{G2} P _{G3} P _{G4}	42.7 94.4 92.4 132	56.4 134 148 213	67.6 162 177 255	77.3 202 227 338	89.8 237 266 395	101 266 392 486	111 443 527 555	143 560 769 790	175 621 769 1115	181 621 899 1129	181 731 905 1297	170 690 1119 1526	170 748 888 1578	170 888 1387 1718	919 919 1442 2020																					
20	P _{G1} P _{G2} P _{G3} P _{G4}	42 92.1 89.4 128	53.3 126 138 198	64 150 162 235	73.1 222 247 310	86.3 225 326 365	100 257 362 512	107 428 499 747	142 525 620 747	170 586 702 1019	179 586 823 1191	202 670 823 1360	179 712 823 1467	182 882 882 1228	182 882 1342 1597	915 1036 1382 1956																					
22.4	P _{G1} P _{G2} P _{G3} P _{G4}	38.9 85.2 81.5 117	49.7 116 125 181	61.3 144 155 223	70.7 213 235 295	82.4 239 293 346	92.6 261 337 420	101 261 337 478	133 397 454 682	159 489 657 954	169 346 668 811	206 673 942 1362	193 463 942 1267	179 676 942 1467	180 450 450 1467	180 893 1035 1228																					
25	P _{G1} P _{G2} P _{G3} P _{G4}	52.5 92.4 130 163	52.5 92.4 130 163	57.6 134 208 261	76.1 197 302 318	77.2 187 323 378	100 252 323 458	98.9 275 507 626	138 470 617 898	155 338 636 771	167 338 636 1245	195 627 862 1201	193 473 862 1277	193 473 862 1164	180 442 442 1164	180 442 442 1227																					
28	P _{G1} P _{G2} P _{G3} P _{G4}	50.9 89.4 123 155	50.9 89.4 123 155	54.1 125 207 187	77.5 140 206 261	75.5 186 302 320	101 235 323 368	93.4 268 352 417	137 439 523 593	150 334 523 819	169 380 580 734	191 463 924 854	191 463 924 1179	198 475 924 1224	198 455 953 1145	198 455 953 1145																					
31.5	P _{G1} P _{G2} P _{G3} P _{G4}	49.9 86.9 118 149	49.9 86.9 118 149	57.4 99.6 135 170	75.3 148 214 248	82.8 183 283 268	100 188 355 342	102 186 457 417	137 439 523 593	159 334 523 819	173 380 580 734	196 377 580 819	196 468 924 1143	217 487 924 1202	222 487 924 1116	222 487 924 1166																					
35.5	P _{G1} P _{G2} P _{G3} P _{G4}	48.6 84.3 113 143	48.6 84.3 113 143	55.7 96.2 127 161	73.9 132 188 239	84.4 150 211 268	98.7 178 271 342	104 186 271 342	135 257 343 544	158 300 492 617	175 328 555 683	198 374 555 781	222 461 953 1075	222 459 953 1171	221 459 953 1052	221 459 953 1137																					

Parallelle tandwielkasten

Nominaal vermogen

Type JRHH3.. en JRHH4..

Bouwgrootte 5 - 28

Helical gear units

Nominal power ratings

Type JRHH3.. and JRHH4..

Sizes 5 - 28

			Nominaal vermogen												Nominal Power Ratings												
i_N	n_1	n_2 r/min	Grootte tandwielkast												Gear unit Sizes												
			5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
40	1500	37.5	46	61	86	108	142	174	252	307	350	433	608	688	795	954	1193	1372	1671	1870							
	1000	25.0	31	41	57	72	95	116	168	205	233	289	405	459	530	636	795	915	1099	1230	1675	1898	2251	2696	3220	3665	
	750	18.8	23	31	43	54	71	87	126	154	175	217	304	344	398	477	597	686	836	935	1257	1423	1688	2022	2415	2749	
45	1500	33.3	40	53	74	93	123	151	219	266	304	376	528	597	691	829	1036	1192	1451	1624							
	1000	22.2	27	35	49	62	82	101	146	177	203	251	352	398	461	553	691	795	967	1082	1489	1687	2001	2397	2862	3258	
	750	16.7	20	27	37	47	62	76	110	133	152	188	299	346	415	518	596	726	812	1117	1265	1501	1798	2147	2443		
50	1500	30.0	36	48	68	85	112	137	199	242	276	342	480	543	628	753	942	1083	1319	1476	2010	2277					
	1000	20.0	24	32	45	57	75	91	133	161	184	228	320	362	419	502	628	722	879	984	1340	1518	1801	2157	2576	2932	
	750	15.0	18	24	34	43	56	69	100	121	138	171	240	272	314	377	471	542	660	738	1005	1139	1351	1618	1932	2199	
56	1500	26.8	32	43	61	76	100	123	179	218	248	308	432	489	565	678	848	975	1187	1328	1795	2033					
	1000	17.9	21	29	41	51	67	82	119	145	165	205	288	326	377	452	565	650	787	880	1197	1356	1608	1926	2300	2618	
	750	13.4	16	22	31	38	50	62	90	109	124	154	216	283	339	424	488	594	664	898	1017	1206	1444	1725	1963		
63	1500	23.8	29	38	54	68	89	110	159	194	221	273	384	434	502	603	753	867	1055	1181	1596	1808	2144				
	1000	15.9	19	25	36	45	59	73	106	129	147	182	256	289	335	402	502	578	699	782	1064	1205	1429	1712	2044	2327	
	750	11.9	15	19	27	34	45	55	80	97	111	137	192	217	251	302	377	434	528	591	798	904	172	1284	1533	1745	
71	1500	21.1	25	34	47	59	78	96	139	169	193	239	336	380	439	527	659	758	923	1033	1416	1604	1903	2279			
	1000	14.1	17	23	31	39	52	64	93	113	129	159	224	253	293	351	439	505	620	693	944	1069	1268	1519	1814	2065	
	750	10.6	13	17	24	30	39	48	70	85	97	120	168	190	220	264	330	379	462	517	708	802	951	1139	1361	1549	
80	1500	18.8	22	30	42	53	70	86	125	151	173	214	301	340	393	472	590	679	826	925	1257	1423	1688	2022			
	1000	12.5	15	20	28	35	47	57	83	101	115	143	201	227	262	315	393	453	549	615	838	949	1126	1348	1610	1832	
	750	9.4	11	15	21	27	35	43	63	76	87	107	151	170	197	236	295	340	413	463	628	712	844	1011	1207	1374	
90	1500	16.7	20	27	34	47	60	76	111	134	153	190	267	302	349	419	507	603	716	821	1021	1265	1396	1798			
	1000	11.1	13	18	23	31	40	51	74	89	102	127	178	201	233	279	338	402	476	546	681	844	931	1198	1338	1629	
	750	8.3	10	14	17	24	30	38	56	67	77	95	134	151	175	210	254	302	358	411	510	633	698	899	1003	1222	
100	1500	15.0	22	34	42	56	68	96	121	142	171	240	271	314	354	471	526	659	730	1005	1037	1351	1429	1932			
	1000	10.0	15	23	28	37	45	64	81	95	114	160	181	209	236	314	351	439	486	670	691	901	953	1288	1372		
	750	7.5		11	17	21	28	34	48	61	71	86	120	136	157	177	236	263	330	365	503	518	675	715	966	1029	
112	1500	13.4	21	30	35	50	60	86	108	127	152	214	242	280	336	420	484	589	659	898	1017	1206	1444	1725	1963		
	1000	8.9	14	20	23	33	40	57	72	85	101	143	161	187	224	280	323	391	438	598	678	804	963	1150	1309		
	750	6.7		11	15	18	25	30	43	54	64	76	107	121	140	168	210	242	295	330	449	508	603	722	862	982	
125	1500	12.0		22	34	44	55	77	98	113	141	192	217	251	301	376	433	527	590	804	911	1081	1294	1546	1759		
	1000	8.0		18	23	29	37	51	65	75	94	128	145	167	201	251	289	351	393	536	607	720	863	1030	1173		
	750	6.0		14	17	22	28	39	49	57	71	96	109	126	151	188	217	264	295	402	455	540	647	773	880		
140	1500	10.7		24	30	39	49	69	87	101	126	171	193	224	268	336	386	470	526	718	813	965	1156	1380	1571		
	1000	7.1		16	20	26	33	46	58	67	84	114	129	149	179	224	257	312	349	479	542	643	770	920	1047		
	750	5.4		12	15	20	25	35	44	51	63	86	97	112	134	168	193	235	263	359	407	482	578	690	785		
160	1500	9.4		21	26	35	43	60	76	89	111	150	170	196	236	295	339	413	462	628	712	844	1011	1207	1374		
	1000	6.3		14	17	23	29	40	51	59	74	100	113	131	157	197	226	277	310	419	474	563	674	805	916		
	750	4.7		11	13	18	22	30	38	45	56	75	85	98	118	148	170	207	231	314	356	422	506	604	687		
180	1500	8.3		18	23	31	38	53	67	78	98	132	150	173	208	260	299	365	408	558	633	750	899	1073	1222		
	1000	5.6		12	15	21	25	35	45	52	65	88	100	115	139	173	199	246	275	327	422	500	599	716	814		
	750	4.2		9	12	16	19	27	34	39	49	66	75	87	104	130	150	183	204	279	316	375	449	537	611		
200	1500	7.5		17	21	28	34	48	61	71	88	120	135	157	188	235	270	329	369	503	569	675	809	966	1099		
	1000	5.0		11	14	19	23	32	41	47	59	80	90	105	125	157	180	219	246	335	380	450	539	644	733		
	750	3.8		9	11	14	17	24	31	36	44	60	68	79	94	118	135	165	185</td								

Parallelle tandwielkasten

Thermisch vermogen

Type JRHH3.. en JRHH4..

Bouwgrootte 5 - 28

Helical gear units

Thermal capacities

Type JRHH3.. and JRHH4..

Sizes 5 - 28

Kegeltandwielkasten
Nominaal vermogen

Type JRHB2.. en JRHB3..

Bouwgrootte 4 - 28

Bevel gear units
Nominal power ratings

Type JRHB2.. and JRHB3..

Sizes 4 - 28

			Nominaal vermogen												Nominal Power Ratings																										
i_N	n_1 r/min	n_2	Grootte tandwielkast												Gear unit Sizes																										
			4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28														
5	1500	300	191	295		596		939		1445		2154		3832																											
	1000	200	127	197		397		626		963		1436		2555																											
	750	150	96	148		298		470		723		1077		1916																											
5.6	1500	268	173	263		533		839		1349		1953		3423		3788																									
	1000	179	116	175		355		559		899		1302		2282		2525																									
	750	134	87	132		267		420		675		977		1712		1894																									
6.3	1500	238	154	234	299	473	593	745	947	1251	1465	1839	2123	3239	3513	4859																									
	1000	159	103	156	199	315	395	497	631	834	977	1226	1415	2159	2342	3239																									
	750	119	77	117	150	237	297	373	474	626	733	920	1062	1620	1757	2430																									
7.1	1500	211	136	207	265	419	525	660	839	1157	1345	1676	1928	2916	3203	4308																									
	1000	141	91	138	177	279	350	440	559	771	897	1117	1285	1944	2135	2872																									
	750	106	68	104	133	210	263	330	420	579	673	838	964	1458	1602	2154																									
8	1500	188	122	185	236	374	468	588	748	1063	1242	1574	1801	2598	2913	3838	4527																								
	1000	125	81	123	157	249	312	392	499	709	828	1049	1201	1732	1942	2559	3018																								
	750	94	61	93	118	187	234	294	374	532	621	787	901	1299	1457	1919	2264																								
9	1500	167	108	164	209	332	416	522	664	944	1140	1418	1654	2308	2588	3409	4021																								
	1000	111	72	109	139	221	277	348	443	629	760	945	1103	1539	1725	2273	2681																								
	750	83	54	82	105	166	208	261	332	472	570	709	827	1154	1294	1705	2011																								
10	1500	150	97	147	188	298	373	469	596	848	1041	1273	1551	2073	2324	3062	3612																								
	1000	100	64	98	125	199	249	313	397	565	694	849	1034	1382	1549	2041	2408																								
	750	75	49	74	94	149	187	235	298	424	521	637	776	1037	1162	1531	1806																								
11.2	1500	134	86	131	168	266	333	419	533	757	930	1137	1422	1852	2076	2736	3227																								
	1000	89	57	87	112	177	222	279	355	505	620	758	948	1235	1384	1824	2151																								
	750	67	43	66	84	133	167	210	267	379	465	569	711	926	1038	1368	1614																								
12.5	1500	120	69	118	150	213	299	351	477	658	833	998	1274	1658	1859	2450	2890	3141		4272																					
	1000	80	46	79	100	142	199	234	318	439	555	665	849	1105	1239	1633	1927	2094		2848																					
	750	60	35	59	75	107	150	176	239	329	417	499	637	829	930	1225	1445	1571		2136																					
14	1500	107	67	109	134	203	266	330	425	635	742	914	1136	1534	1658	2184	2576	2935	3305	4033	4537																				
	1000	71	44	73	89	135	177	220	283	423	495	609	757	1023	1105	1456	1717	1957	2203	2676	3010																				
	750	54	34	55	67	102	133	165	213	318	371	457	568	767	829	1092	1288	1468	1653	2017	2269																				
16	1500	94	64	103	118	194	211	305	350	589	652	824	978	1397	1515	1968	2263	2706	3031	3740	4153																				
	1000	63	43	69	79	129	141	203	233	393	435	549	652	931	1010	1312	1509	1804	2021	2506	2783																				
	750	47	32	52	59	97	106	153	175	295	326	412	489	699	758	984	1132	1353	1516	1870	2077																				
18	1500	83	58	98	109	183	200	294	325	538	604	753	886	1286	1390	1738	2085	2503	2781	3476	3806																				
	1000	56	39	65	73	122	133	196	217	359	403	502	591	857	927	1159	1390	1669	1854	2345	2568																				
	750	42	29	49	55	92	100	147	163	269	302	377	443	643	695	869	1043	1252	1391	1738	1903																				
20	1500	75	52	91	103	170	196	280	308	498	570	712	824	1201	1311	1570	1884	2356	2607	3298	3573																				
	1000	50	35	61	69	113	131	187	205	332	380	475	549	801	874	1047	1256	1571	1738	2198	2382	3351		4503																	
	750	38	26	46	52	85	98	140	154	249	285	356	412	601	656	785	942	1178	1304	1649	1787	2513		3377		4830															
22.4	1500	67	47	81	99	152	185	250	293	445	530	636	757	1073	1213	1403	1683	2104	2420	2946	3297																				
	1000	45	31	54	66	101	123	167	195	297	353	424	505	715	809	935	1122	1403	1613	1979	2214	2992	3389	4020	4815																
	750	33	24	41	50	76	93	125	147	223	265	318	379	537	607	702	842	1052	1210	1473	1649	2244	2542	3015	3611	4312	4908														
25	1500	60	42	72	97	136	170	224	275	398	485	569	709	961	1086	1256	1507	1884	2167	2638	2952		</td																		

Kegeltandwielkasten

Thermisch vermogen

Type JRHB2.. en JRHB3..

Bouwgrootte 4 - 28

Bevel gear units

Thermal capacities

Type JRHB2.. and JRHB3..

Sizes 4 - 28

			Thermisch vermogen																Thermal Capacities																		
i_N			Grootte tandwielkast																Gear unit Sizes																		
			4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28										
Thermische capaciteit P_g (in kW) afhankelijk van soort koeling; P_{g1} : zonder externe koeling, P_{g2} : ventilator koeling, P_{g3} : koelspiraal, P_{g4} : ventilaor en spiraalkoeling. Thermal capacity P_g (in kW) dependent on kind of cooling; P_{g1} : without auxiliary cooling, P_{g2} : fan cooling, P_{g3} : cooling coil, P_{g4} : fan and cooling coil.																																					
5	P_{G1}	35.3																																			
	P_{G2}	139	184																																		
	P_{G3}	159	238																																		
	P_{G4}	249	366																																		
5.6	P_{G1}	38.6																																			
	P_{G2}	135	185																																		
	P_{G3}	154	231																																		
	P_{G4}	241	359																																		
6.3	P_{G1}	40																																			
	P_{G2}	132	178	206	259	308	310	345	479	581	633	753	664	684	646																						
	P_{G3}	147	215	306	308	449	385	531	651	1120	1295	1613	1847	2019	2155																						
	P_{G4}	231	336	456	497	690	612	799	1010	1596	1839	2267	2393	2574	2689																						
7.1	P_{G1}	40.6	44	50.6																																	
	P_{G2}	125	169	204	248	298	299	336	493	601	676	804	720	754	740	760																					
	P_{G3}	135	199	298	284	414	354	488	629	1072	1261	1552	1722	1875	2031	2177																					
	P_{G4}	213	313	447	462	642	570	747	996	1556	1848	2261	2331	2505	2666	2817																					
8	P_{G1}	39.9	45.1	53.4	53																																
	P_{G2}	117	160	195	236	280	287	321	463	564	646	768	713	775	756	808																					
	P_{G3}	124	182	276	263	375	328	444	557	942	1126	1364	1553	1751	1851	2043																					
	P_{G4}	198	290	417	430	586	533	686	896	1392	1674	2016	2152	2400	2499	2729																					
9	P_{G1}	39.3	45.7	54.4	55.8	61.6	59.6																														
	P_{G2}	111	153	186	226	266	277	306	452	568	640	785	724	759	782	812																					
	P_{G3}	115	168	253	246	346	310	409	526	915	1055	1329	1474	1570	1766	1858																					
	P_{G4}	183	267	386	407	543	507	637	853	1363	1598	1996	2085	2204	2444	2549																					
10	P_{G1}	33.7	44	53.3	55.1	62.3	60.8	63.9																													
	P_{G2}	92.8	140	174	211	251	261	291	429	525	616	734	698	753	770	818																					
	P_{G3}	91.9	150	233	224	318	284	377	483	810	978	1176	1347	1490	1642	1772																					
	P_{G4}	147	240	356	372	505	465	591	791	1218	1490	1787	1933	2118	2306	2464																					
11.2	P_{G1}	33	40.4	52.1	51	61.9	57.7	65.2																													
	P_{G2}	89.8	125	165	188	240	232	279	382	506	555	709	641	721	714	797																					
	P_{G3}	87.9	131	213	195	298	246	356	418	764	849	1101	1186	1360	1457	1652																					
	P_{G4}	140	210	327	326	474	406	561	688	1156	1306	1688	1722	1960	2068	2315																					
12.5	P_{G1}	39.4	50.4	50.1	76.7	61.7	95.4	66.9																													
	P_{G2}	84.8	118	151	186	224	250	264	377	481	468	681	602	669	728	749																					
	P_{G3}	94.7	151	189	265	272	390	326	542	701	831	1021	1261	1198	1484	1468																					
	P_{G4}	131	209	292	362	435	529	515	768	1070	1218	1574	1652	1754	1991	2093																					
14	P_{G1}	38.6	49.6	46	75.7	57.4	95.2	63.1																													
	P_{G2}	82.6	114	135	180	200	244	236	374	428	482	611	598	631	728	792																					
	P_{G3}	91.9	146	166	257	238	380	283	533	605	843	884	1217	1280	1443	1569																					
	P_{G4}	127	202	255	350	380	514	449	756	931	1147	1377	1603	1688	1947	2110																					
16	P_{G1}	36.8	48.3	55.4	72.9	83.3	94.3	103																													
	P_{G2}	78.6	110	126	172	196	239	262	358	407	445	511	597	615	737	741																					
	P_{G3}	87.4	141	157	244	272	369	415	508	662	769	868	1196	1230	1429	1447																					
	P_{G4}	121	195	216	334	369	500	558	719	907	1047	1181	1583	1621	1937																						

Kegeltandwielkasten Nominaal vermogen

Type JRHB3.. en JRHB4..

Bouwgrootte 4 - 280

Bevel gear units Nominal power ratings

Type JRHB3.. and JRHB4..

Sizes 4 - 28

			Nominaal vermogen												Nominal Power Ratings											
i_N	n_1 r/min	n_2	Grootte tandwielkast												Gear unit Sizes											
			4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
31.5	1500	47.6	33	58	77	109	136	179	220	319	388	455	567	769	869	1005	1206	1507	1734	2110	2362					
	1000	31.7	22	39	51	73	91	119	147	213	259	303	378	513	579	670	804	1005	1156	1407	1574	2127	2410	2859	3424	
	750	23.8	17	29	39	55	68	90	110	160	194	228	284	385	435	503	603	754	867	1055	1181	1596	1808	2144	2568	3067 3490
35.5	1500	42.3	29	51	68	95	119	157	192	279	339	412	484	603	817	923	1068	1281	1602	1842	2067					
	1000	28.2	19	34	45	63	79	105	128	186	226	275	323	402	545	615	712	854	1068	1231	1378	1858	2138	2537	3038	
	750	21.1	15	26	34	48	60	79	96	140	170	206	242	302	409	462	534	641	801	924	1034	1394	1604	1903	2279	2721 3097
40	1500	37.5	26	46	61	86	108	142	174	252	307	360	449	608	688	795	954	1193	1372	1671	1870					
	1000	25.0	17	31	41	57	72	95	116	168	205	240	299	405	459	530	636	795	915	1099	1230	1649	1832	2251	2696	
	750	18.8	13	23	31	43	54	71	87	126	154	180	225	304	344	398	477	597	686	836	935	1237	1374	1688	2022	2415 2749
45	1500	33.3	23	40	53	74	93	123	151	219	266	313	390	528	597	691	829	1036	1192	1451	1624					
	1000	22.2	15	27	35	49	62	82	101	146	177	209	260	352	398	461	553	691	795	967	1082	1466	1629	2001	2397 2862	
	750	16.7	12	20	27	37	47	62	76	110	133	157	195	264	299	346	415	518	596	726	812	1099	1222	1501	1798	2147 2443
50	1500	30.0	21	36	48	68	85	112	137	199	242	284	354	480	543	628	753	942	1083	1319	1476					
	1000	20.0	14	24	32	45	57	75	91	133	161	189	236	320	362	419	502	628	722	879	984	1319	1466	1801	2157	2576 2932
	750	15.0	11	18	24	34	43	56	69	100	121	142	177	240	272	314	377	471	542	660	738	990	1099	1351	1618	1932 2199
56	1500	26.8	18	32	43	61	76	100	123	179	218	256	319	432	489	565	678	848	975	1187	1328					
	1000	17.9	12	21	29	41	51	67	82	119	145	171	213	288	326	377	452	565	650	787	880	1178	1309	1608	1926	2300 2618
	750	13.4	9	16	22	31	38	50	62	90	109	128	160	216	245	283	339	424	488	594	664	884	982	1206	1444	1725 1963
63	1500	23.8	16	28	38	53	68	89	110	159	194	227	283	384	434	502	603	753	867	1055	1181					
	1000	15.9	10	19	25	35	45	59	73	106	129	151	189	256	289	335	402	502	578	699	782	1047	1163	1429	1712	2044 2327
	750	11.9	8	14	19	27	34	45	55	80	97	114	142	192	217	251	302	377	434	528	591	785	873	1072	1284	1533 1745
71	1500	21.1	14	24	34	43	59	74	96	131	169	199	248	336	380	439	527	659	758	923	1033					
	1000	14.1	10	16	23	29	39	49	64	87	113	133	165	224	253	293	351	439	505	620	693	929	1032	1180	1519	1696 2065
	750	10.6	7	12	17	22	30	37	48	66	85	100	124	168	190	220	264	330	379	462	517	697	774	885	1139	1272 1549
80	1500	18.8	22	27	42	52	70	86	121	151	178	222	301	340	393	472	590	679	826	925	1257		1649			
	1000	12.5	15	18	28	35	47	57	81	101	119	148	201	227	262	315	393	453	549	615	838	916	1099	1191	1603	1715
	750	9.4	11	14	21	26	35	43	61	76	89	111	151	170	197	236	295	340	413	463	628	687	825	893	1203	1286
90	1500	16.7	20	24	37	44	62	75	107	131	158	197	267	302	349	419	524	603	734	821	1117	1265	1483	1675		
	1000	11.1	13	16	25	29	41	50	71	87	105	131	178	201	233	279	349	402	488	546	745	844	989	1117	1425	1629
	750	8.3	10	12	19	22	31	38	54	66	79	99	134	151	175	210	262	302	367	411	558	633	742	838	1069	1222
100	1500	15.0	18	24	34	42	56	69	96	122	142	177	240	271	314	376	471	541	659	738	1005	1139	1351	1524		
	1000	10.0	12	16	23	28	37	46	64	81	95	118	160	181	209	251	314	361	439	492	670	759	901	1016	1277	1466
	750	7.5	9	12	17	21	28	35	48	61	71	89	120	136	157	188	236	271	330	369	503	569	675	762	958	1099
112	1500	13.4	16	21	30	38	50	62	86	109	127	158	214	242	280	336	420	484	589	659	898	1017	1206	1388		
	1000	8.9	11	14	20	25	33	41	57	73	85	105	143	161	187	224	280	323	391	438	598	678	804	926	1141	1309
	750	6.7	8	11	15	19	25	31	43	55	64	79	107	121	140	168	210	242	295	330	449	508	603	694	855	982
125	1500	12.0	14	19	27	34	44	55	77	98	113	141	192	217	251	301	376	433	527	590	804	911	1081	1244		
	1000	8.0	9	13	18	23	31	38	53	67	78	98	132	150	170	196	236	295	339	413	462	628	712	844	991	
	750	6.0	7	10	14	17	22	28	39	49	57	71	96	109	126	151	188	217	264	295	402	455	540	622	763	880
140	1500	10.7	12	17	24	30	39	49	69	87	101	126	171	193	224	268	336	386	470	526	718	813	965	1133		
	1000	7.1	8	11	16	20	26	33	46	58	67	84	114	129	149	179	224	257	312	349	479	542	643	755	909	1047
	750	5.4	6	9	12	15	20	25	35	44	51	63	86	97	112	134	168	210	242	294	323	359	407	482	567	682
160	1500	9.4	11	15	21	26	35	43	60	76	89	111	150	170	196	236	295	339	413	462	628	712	844	991		
	1000	6.3	7	10	14	17	23	29	40	51	59	74	100	113	131	157	197	226	277	310	419	474	563	661	792	916
	750	4.7	6	8	11	13	18	22	30	38	45</td															

Kegeltandwielkasten

Thermisch vermogen

Type JRHB3.. en JRHB4..

Bouwgrootte 4 - 28

Bevel gear units

Thermal capacities

Type JRHB3.. and JRHB4..

Sizes 4 - 28

			Thermisch vermogen															Thermal Capacities																
i_N			Grootte tandwielkast															Gear unit Sizes																
			4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28							
Thermische capaciteit P_G (in kW) afhankelijk van soort koeling; P_{G1} : zonder externe koeling, P_{G2} : ventilator koeling, P_{G3} : koelspiraal, P_{G4} : ventilar en spiraalkoeling. Thermal capacity P_G (in kW) dependent on kind of cooling: P_{G1} : without auxiliary cooling, P_{G2} : fan cooling, P_{G3} : cooling coil, P_{G4} : fan and cooling coil.																																		
31.5	P_{G1}	29.4	40.7	47.8	61.7	72.7	82.7	90.7	106	129	131	154	170	183	190	199	216	227	263	311	371													
	P_{G2}	60.7	88.5	103	136	160	190	210	282	344	365	430	508	58	658	712	799	863	831	871														
	P_{G3}	65.2	108	126	180	215	271	312	356	508	550	658	857	952	1067	1165																		
	P_{G4}	90.8	149	175	247	292	370	424	514	709	766	912	1162	1288	1487	1620																		
35.5	P_{G1}	27.8	38.6	46.4	59.1	69.8	79.6	87.7	105	125	130	151	173	181	196	203	228	235	286	325	381	439												
	P_{G2}	56.8	83	99.8	129	152	181	199	271	328	353	412	495	526	644	677	786	825	821	839														
	P_{G3}	59.9	99.3	119	167	200	248	292	338	475	524	615	819	871	1021	1071																		
	P_{G4}	83.7	138	166	229	272	341	396	487	661	732	855	1114	1181	1429	1498																		
40	P_{G1}	24.3	33.7	44.3	52	67.1	75	84.4	100	121	125	147	168	180	194	204	226	240	208	247	305	283	822											
	P_{G2}	49.4	71.6	94.6	112	144	168	191	255	310	334	392	469	510	614	657	747	774	805	783	822													
	P_{G3}	50.5	82.7	111	138	187	224	274	310	440	484	574	758	829	954	1022																		
	P_{G4}	70.6	115	155	191	254	309	372	449	616	678	798	1035	1129	1339	1434																		
45	P_{G1}	23.8	32.9	41.8	50.8	64	69.4	80.8	93.2	118	117	144	160	176	187	203	221	240	207	206	247	305	283	822										
	P_{G2}	48.3	69.8	88.5	108	137	154	180	234	298	306	377	434	484	572	629	700	765	733	785														
	P_{G3}	49	79.7	102	133	172	202	251	280	417	435	544	684	768	868	960																		
	P_{G4}	68.7	111	142	183	236	279	342	407	585	607	760	936	1049	1221	1346																		
50	P_{G1}	24.2	33	36.8	50.7	56.9	69.3	77	95.8	115	124	142	174	174	210	204	240	247	260	232	247	305	283	822										
	P_{G2}	48.7	69.2	76.9	106	119	151	169	232	281	310	358	445	453	593	594	690	730	799	757														
	P_{G3}	49.1	77.7	85.8	129	144	194	228	274	384	433	506	692	696	884	880																		
	P_{G4}	68.5	108	119	177	197	269	312	396	539	610	709	944	956	1242	1240																		
56	P_{G1}	22.4	30.7	36.2	47.5	55.7	64.8	72	88.9	108	117	135	167	186	203	225	245	260	271	279	318													
	P_{G2}	44.8	64	75.1	99.5	116	140	155	211	260	285	330	411	461	552	612	675	712	772	818														
	P_{G3}	44.2	70.1	82.9	117	138	174	206	243	345	389	451	622	702	800	891																		
	P_{G4}	62.1	98.3	115	162	190	241	281	354	488	547	637	852	962	1128	1255																		
63	P_{G1}	21.6	29.5	36	46.1	55.2	62.8	71	86.3	108	114	138	162	173	199	211	243	256	272	275	318													
	P_{G2}	43.2	61.6	74.2	96.2	114	135	151	203	255	275	332	393	422	529	563	654	689	752	776														
	P_{G3}	41.9	66.2	80.8	111	134	164	197	229	335	366	451	585	627	755	805																		
	P_{G4}	58.9	93	112	154	185	229	269	334	471	517	633	802	862	1071	1133																		
71	P_{G1}	20	28.2	33.3	43.9	51.4	59	65.9	80.2	99.9	107	127	155	167	190	205	232	251	261	273														
	P_{G2}	40	58.5	68.4	91.7	106	126	140	189	232	258	302	372	404	498	539	615	666	707	754														
	P_{G3}	38	61.3	73	103	122	148	177	206	297	331	404	538	591	698	760																		
	P_{G4}	53.7	86.5	102	143	168	209	243	301	421	469	567	743	813	990	1075																		
80	P_{G1}		31.7	31.9	46.9	49.7	66.1	63.8	98.6	95.8	130	123	171	161	189	196	256	240	343	262	710													
	P_{G2}			65.9		102		136		224		291		384		544		700																
	P_{G3}		68.8		115		167		278		379		536		751		994																	
	P_{G4}		96.7		160		231		396		536		751																					
90	P_{G1}		31.1	30.5	45.5	47.4	64.7	60	95.9	89.6	128	115	164	175	183	195	248	264	337	345														
	P_{G2}			62.7		97.6		127		208		273		343		487																		
	P_{G3}		63.8		107		151		210		357																							
	P_{G4}		90.1		149																													
100	P_{G1}	29.6	34	43.1	50.2	61.5	66.7	92.4	110	121	140	156	169	173	188	236	255	321	339															
112	P_{G1}	28.6	33.3	41.5	48.8	59.2	65.3	88.3	106	116	137	149	161	167	179	227	243	315	323															
125	P_{G1}	27.4	31.8	39.7</																														

Parallelle tandwielkasten
Nominaal uitgaand koppel

Type JRHH1.. tot JRHH4..

Bouwgrootte 3 - 28

Helical gear units
Nominal output torque

Type JRHH1.. up to JRHH4..

Sizes 3 - 28

i _N	Nominale overbrengingsverhouding i _N , nominale uitgaand koppel T _{2N}															Nominal ration i _N , nominal output torque T _{2N}																			
	Grootte tandwielkast															Gear unit Sizes																			
	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	Nominal uitgaand koppel T _{2N} [kNm]															Nominal output torque T _{2N} [kNm]																		
1.25	2.9		78		15.2		24.7																												
1.4	3.1		8.2		15.9		25.6																												
1.6	3.3		8.6		16.3		27.1		46		67.4																								
1.8	2.7		8.8		17.4		28		47.6		70.9																								
2	2.8		9.4		17.8		28.7		49.1		72.9		129																						
2.24	2.8		9.6		17.8		28.7		50.6		75.3		130																						
2.5	2.9		9.6		17.8		28.7		50.6		77		117																						
2.8	3.1		9.6		17.1		27.2		50.6		77		120		171																				
3.15	3.1		9.6		17.4		28.1		48.1		73.1		124		173																				
3.55	3.2		9.5		17.8		28.6		50.2		74.4		126		173																				
4	3.2		9.6		17.8		28.7		50.6		75.7		130		173		245																		
4.5	2.5	6.3	7.7		15.8		24.6		46		61.6		109		146		216																		
5	2.4	6.3	7.2		13.8		23.5		38.7		58.3		95		124		174																		
5.6	2.3	6.3	6.9		13.1		20.1		36.5		55.4		90.4		118		150																		
6.3	3.3	6.3	10.7		20.3		33.7		59.3		86		143		195		292										500		800						
7.1	3.3	6.5	11.2		20.3		33.7		59.3		86		143	160	195	230	292	335	410							520	565	825	910						
8	3.3	6.7	11.2	13.5	20.3	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	540	585	860	940	1055										
9	3.3	6.7	11.2	14.4	20.3	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	555	610	860	985	1085	1205									
10	3.3	6.3	10.5	14.4	20.3	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	575	625	860	1020	1130	1240									
11.2	3.3	6.3	10.6	14.4	20.3	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	575	645	860	1030	1175	1285									
12.5	3.3	6.7	11.2	13.5	20.3	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	600	650	860	1030	1210	1340									
14	3.3	6.7	11.2	13.5	20.3	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	620	675	860	1030	1230	1375									
16	3.3	6.7	11.2	14.4	20.3	25.5	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	640	695	860	1030	1230	1400									
18	3.3	6.3	10.5	14.4	19	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	640	725	860	1030	1230	1400									
20	3.3	6.6	11.2	14.4	19	25.6	33.7	42.2	59.3	73.8	86	107	143	160	195	230	292	335	410	458	585	725	800	1030	1150	1400									
22.4	3.3	6.3	10.9	13.5	19.8	24	33.1	42.2	58.3	73.8	88	107	153	160	200	230	300	335	410	458	600	660	860	910	1230	1310									
25			11.6	14.3	21.7	24	35.7	42.2	63.5	73.8	88	107	153	173	200	240	300	335	420	458	620	675	860	1030	1230	1400									
28			11.6	13.9	21.7	25	35.7	41.6	63.5	72.5	88	109	153	173	200	240	300	345	420	470	640	700	860	1030	1230	1400									
31.5			11.6	15.5	21.7	27.2	35.7	43.8	63.5	77.2	88	109	153	173	200	240	300	345	420	470	640	725	860	1030	1230	1400									
35.5			11.6	15.5	21.7	27.2	35.7	43.8	63.5	77.2	88	109	153	173	200	240	300	345	420	470	640	725	860	1030	1230	1400									
40			11.6	15.5	21.7	27.2	35.7	43.8	63.5	77.2	88	109	153	173	200	240	300	345	420	470	640	725	860	1030	1230	1400									
45			11.6	15.5	21.7	27.2	35.7	43.8	63.5	77.2	88	109	153	173	200	240	300	345	420	470	640	725	860	1030	1230	1400									
50			11.6	15.5	21.7	27.2	35.7	43.8	63.5	77.2	88	109	153	173	200	240	300	345	420	470	640	725	860	1030	1230	1400									
56			11.6	15.5	21.7	27.2	35.7	43.8	63.5	77.2	88	109	153	173	200	240	300	345	420	470	640	725	860	1030	1230	1400									
63			11.6	15.5	21.7	27.2	35.7	43.8	63.5	77.2	88	109	153	173	200	240	300	345	420	470	640	725	860	1030	1230	1400									
71			11.6	15.5	21.7	27.2	35.7	43.8	63.5	77.2	88	109	153	173	200	240	300	345	420	470	640	725	860	1030	1230	1400									
80			11.6	15.5	21.7	27.2	35.7	43.8	63.5	77.2	88	109	153	173	200	240	300	345	420	470	640	725	860	1030	1230	1400									
90			11.6	15.5	20	27.2	34.5	43.8	61.6	77.2	88	109	153	173	200	240	290	345	410	470	585	725	800	1030	1150	1400									
100				14.5	21.7	27.2	35.7	43.8	61.6	77.2	90.7	109	153	173	200	226	300	345	420	465	640	660	860	910	1230	1310									
112				15	21.7	25.2	35.7	42.8	61.6	77.2	90.7	109	153	173	200	240	300	345	420	470	640	725	860	1030	1230	1400									
125					21.7	27.2	35.7	44.2	61.6	78	90.7	113	153	173	200	240	300	345	420	470	640	725	860	1030	1230	1400									
140																																			

Kegeltandwielkasten

Nominaal uitgaand koppel

Type JRHB2.. tot JRHB4..

Bouwgrootte 4 - 28

Bevel gear units

Nominal output torque

Type JRHB2.. up to JRHB4..

Sizes 4 - 28

**Toelaatbare radiale krachten
van de uitgaande as**

Alle typen

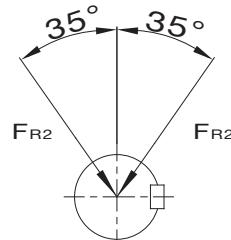
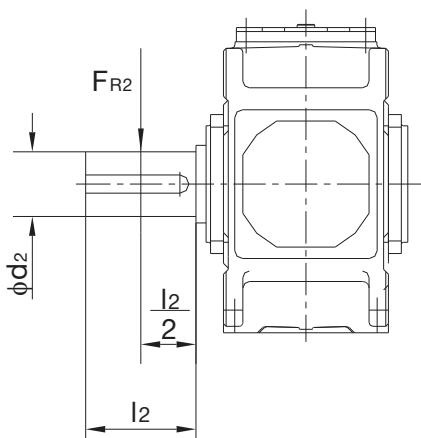
Bouwgrootte 3 - 18

**Permissible radial forces
on output shaft**

All types

Sizes 3 - 18

Aangrijppingspunt van de kracht op het midden van de as
Application of force on centre of shaft end



Toelaatbare krachthoek
Permissible direction of force

Toelaatbare radiale krachten FR2 in kN waarbij de kracht aangrijpt op het midden van de as ³⁾
Permissible additional radial forces FR2 in kN with application of force on centre of shaft end ³⁾

Type	Bouwvorm <i>Design</i>	Tandwielkast grootte / <i>Gear unit sizes</i> 1), 4)														
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
JRHH1SH	A/B	2)	-	2)	-	2)	-	2)	-	2)	-	2)	-	2)	-	2)
JRHH2S.	A/B/G/H	-	10	22	22	30	30	30	45	64	64	150	150	140	205	205
	C/D	-	10	13	13	18	18	10	28	35	35	112	112	85	135	135
JRHH3S.	A/B/G/H	-	10	29	29	40	40	40	60	85	85	190	190	185	265	265
	C/D	-	-	18	18	26	26	18	40	50	50	150	150	120	185	190
JRHH4S.	A/B	-	-	-	-	26	26	18	40	50	50	150	150	120	185	190
	C/D	-	-	-	-	40	40	40	60	85	85	190	190	185	265	265
JRHB2S.	A/C	-	13	27	27	37	37	38	55	78	78	160	160	150	210	210
	B/D	-	12	15	15	17	17	10	30	35	38	110	110	75	145	100
JRHB3S.	A/C	-	12	29	29	40	40	40	60	85	85	190	190	185	265	265
	B/D	-	14	18	18	26	26	18	40	50	50	150	150	120	185	190
JRHB4S.	A/C	-	9	29	29	40	40	40	60	85	85	190	190	185	265	265
	B/D	-		18	18	26	26	18	40	50	50	150	150	120	185	190

1) De vermelde waarden in de tabellen zijn minimum waarden.
Indien de krachthoek of de draairichting anders is dan aangegeven dan zijn vaak aanzienlijk hogere belastingen toelaatbaar.

Neem contact met ons op voor meer informatie.

2) Optioneel

3) Zie de volgende pagina indien krachten optreden uit het midden van de as.

4) Gebruik bouten met minimaal kwaliteitsklasse 8.8.

De bout dient schoon en vettvrij gemonteerd te worden.

Op aanvraag worden de toelaatbare radiale krachten ingaande as d1 verstrekt.

1) Values in tables are minimum values. If the angle of application of force and the direction of rotation are give, significantly higher additional forces can mostly be allowed. Please consult us.

2) On request

3) For application of force outside the centre of the shaft end, see next page.

4) Use foundation bolts of min. property class 8.8. Foundation must be dry and grease-free.

On request:

Permissible additional radial forces on input shaft d1.

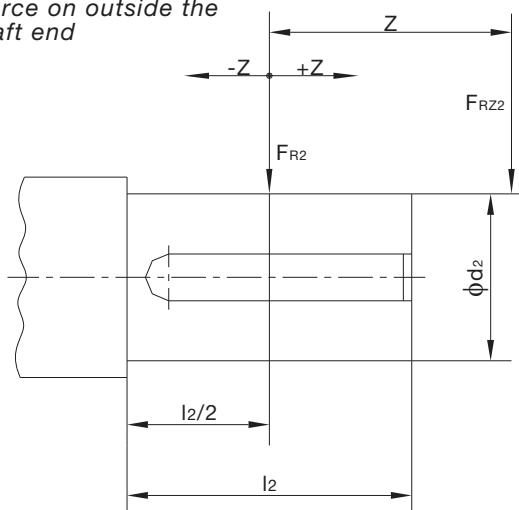
**Radiale krachten uit het
midden van de uitgaande as**
Alle typen
Bouwgroottes 3 - 18

**Radial forces outside the center
on output shaft**
All types
Sizes 3 - 18

Toepassingen waarbij de kracht uit
het midden van de as aangrijpt

*Application of force on outside the
centre of the shaft end*

$$F_{RZ2} = F_{R2} \times K$$



F_{RZ2} Toelaatbare radiale kracht die
buiten de as aangrijpt
Permissible external radial force

F_{R2} Toelaatbare radiale kracht volgens
tabel op vorige bladzijde
*Permissible additional radial force
acc.to previous page*

K Correctiefactor volgens
onderstaande tabel
*Factor of application of force acc.
to table*

Grootte Size	Correctiefactor k <i>Factor of application of force k</i>														
	Afstand Z, mm / Distance Z in mm														
	-200	-150	-100	-75	-50	-25	0	25	50	75	100	150	200	250	300
3					1.21	1.09	1.00	0.85	0.74	0.65	0.58	0.48			
4					1.17	1.08	1.00	0.86	0.74	0.68	0.62	0.52	0.44		
5+6				1.22	1.14	1.06	1.00	0.88	0.79	0.72	0.66	0.56	0.49	0.43	
7+8				1.19	1.12	1.06	1.00	0.89	0.81	0.74	0.68	0.58	0.51	0.46	0.41
9+10			1.22	1.15	1.10	1.05	1.00	0.90	0.82	0.76	0.70	0.61	0.54	0.48	0.44
11+12			1.18	1.13	1.08	1.04	1.00	0.91	0.84	0.78	0.73	0.64	0.57	0.51	0.47
13+14		1.24	1.15	1.11	1.07	1.03	1.00	0.92	0.86	0.80	0.75	0.67	0.60	0.55	0.50
15+16		1.20	1.12	1.09	1.06	1.03	1.00	0.93	0.87	0.82	0.77	0.69	0.63	0.58	0.53
17+18	1.25	1.17	1.11	1.08	1.05	1.03	1.00	0.94	0.88	0.84	0.79	0.72	0.66	0.60	0.56

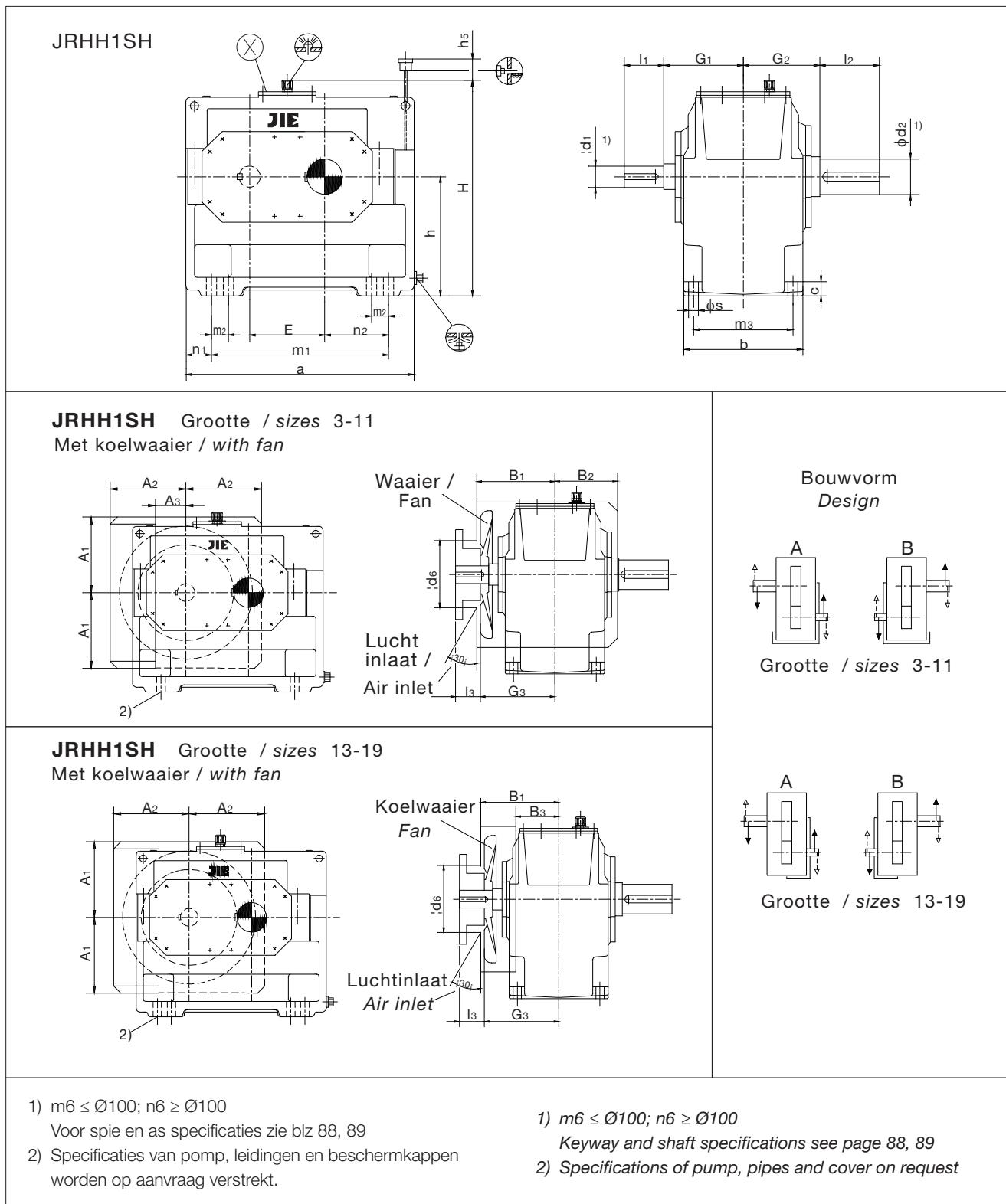
6. Afmetingen / Dimensions

Parallelle tandwielkasten

Eéntraps Horizontaal
Type JRHH1SH
Bouwgrootte 3 - 19

Helical gear units

Single stage Horizontal
Type JRHH1SH
Sizes 3 - 19



Parallelle tandwielkasten
Eéntraps Horizontaal
Type JRHH1SH
Bouwgrootte 3 - 19

Helical gear units
Single stage Horizontal
Type JRHH1SH
Sizes 3 - 19

Grootte Size	Afmetingen / Dimensions [mm]																
	Ingaande as / Input																
	i _N =1.25-2.8			i _N =1.6-2.8			i _N =2-2.8			i _N =3.15-4			i _N =4.5-5.6			G ₁	G ₃
d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃			
3	60	125	105						45	100	80					170	190
5	85	160	130						60	135	105	50	110	80	210	240	
7	100	200	165						75	140	105	60	140	105	250	285	
9	110	200	165						90	165	130	75	140	105	280	315	
11				130	240	205			110	205	170	90	170	135	325	360	
13				150	245	200			130	245	200	100	210	165	365	410	
15							180	290	240	150	250	200	125	250	200	360	410
17							200	330	280	170	290	240	140	250	200	400	450
19							220	340	290	190	340	290	160	300	250	440	490

Grootte Size	Afmetingen / Dimensions [mm]																			
	Ingaande as / Input																			
	a	A ₁	A ₂	A ₃	b	B ₁	B ₂	B ₃	c	d ₆	E	h	h ₅	H	m ₁	m ₂	m ₃	n ₁	n ₂	s
3	420	150	145	80	200	205	130	-	28	130	130	200	85	375	310	-	160	55	110	19
5	580	225	215	115	285	255	185	-	35	190	185	290	100	525	440	-	240	70	160	24
7	690	255	250	120	375	300	230	-	45	245	225	350	75	625	540	-	315	75	195	28
9	805	300	265	140	425	330	265	-	50	280	265	420	50	735	625	-	350	90	225	35
11	960	360	330	190	515	375	320	-	60	350	320	500	40	875	770	-	440	95	280	35
13	1100	415	350	-	580	430	-	150	70	350	370	580	40	1020	870	-	490	115	315	42
15	1295	500	430	-	545	430	-	120	80	450	442	600	10	1115	1025	-	450	135	370	48
17	1410	550	430	-	615	470	-	150	80	445	490	670	-	1235	1170	130	530	120	425	42
19	1590	630	475	-	690	510	-	190	90	445	555	760	-	1395	1290	150	590	150	465	48

Grootte Size	Afmetingen / Dimensions [mm]				Olie / Oil							Gewicht / Weight [kg]	
	Ingaande as / Input				Asafdichting / Shaft seal (L)				Labyrintafdichting / Labyrinth seal (L)				
	d ₂	G ₂	l ₂										
3	60	170	125		7				5.2			128	
5	85	210	160		22				19			308	
7	105	250	200		42				36			558	
9	125	270	210		68				60			879	
11	150	320	240		120				106			1545	
13	180	360	310		175				155			2443	
15	220	360	350		190				156			3264	
17	240	400	400		270				225			4335	
19	270	440	450		390				330			5916	

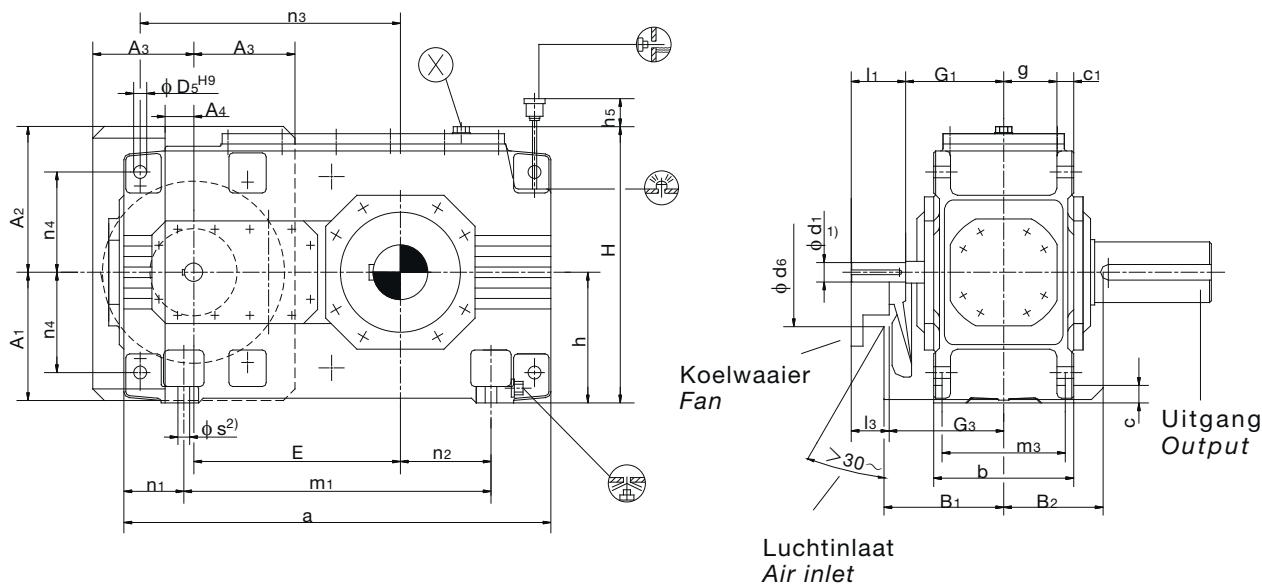
Parallelle tandwielkasten

Tweetraps Horizontaal
Type JRHH2.H
Bouwgrootte 3 - 12

Helical gear units

Two stage Horizontal
Type JRHH2.H
Sizes 3 - 12

JRHH2SH JRHH2HH JRHH2DH



Uitgang / Output		Bouwvorm / Design
JRHH2SH Massieve as <i>Solid shaft</i>	JRHH2HH Holle as <i>Hollow shaft</i>	JRHH2DH Holle as voor klembus <i>Hollow shaft for shrink disk</i>
 ϕd_2 l_2 G_2	 ϕD_{2H7} l_2 G_4	 ϕD_{3H7} ϕD_4 G_4 G_5

1) $m6 \leq \phi 100$; $n6 \geq \phi 100$
Voor spie en as specificaties zie blz 78, 79
2) Verwijder voor montage de waaierkap

1) $m6 \leq \phi 100$; $n6 \geq \phi 100$
Keyway and shaft specifications see page 78, 79
2) Remove air guide cover before fitting foundation bolts

Parallelle tandwielkasten

 Tweetraps Horizontaal
 Type JRHH2.H
 Bouwgrootte 3 - 12

Helical gear units

 Two stage Horizontal
 Type JRHH2.H
 Sizes 3 - 12

Grootte Size	Afmetingen / Dimensions [mm]													
	Ingaande as / Input													
	$i_N=6.3-11.2^1)$			$i_N=8-14$			$i_N=12.5-22.4$			$i_N=16-28$			G ₁	G ₃
d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃			
3	38	82	-										135	-
4	48	100	70										140	170
5	50	100	80				38	80	60				195	215
6				50	100	80				38	80	60	195	215
7	60	135	105				50	110	80				210	240
8				60	135	105				50	110	80	210	240
9	75	140	110				60	140	110				240	270
10				75	140	110				60	140	110	240	270
11	90	165	130				70	140	105				275	310
12				90	165	130				70	140	105	275	310

Grootte Size	Afmetingen / Dimensions [mm]											
	Tandwielkasten / Gear units											
	a	A ₁	A ₂	A ₃	A ₄	b	B ₁	B ₂	c	c ₁	D ₅	d ₆
3	460	-	-	-	-	190	-	-	22	37±1	18	-
4	575	195	225	150	30	215	190	158	28	30±1	24	136
5	640	225	260	175	55	255	230	177.5	28	30±1	24	150
6	720	225	260	175	55	255	230	177.5	28	30±1	24	150
7	785	272	305	210	70	300	255	210	35	36±1	28	200
8	890	272	305	210	70	300	255	210	35	36±1	28	200
9	925	312	355	240	100	370	285	245	40	45±1.5	36	200
10	1025	312	355	240	100	370	285	245	40	45±1.5	36	200
11	1105	372	420	285	135	430	325	285	50	54±1.5	40	210
12	1260	372	420	285	135	430	325	285	50	54±1.5	40	210

Grootte Size	Afmetingen / Dimensions [mm]											
	Tandwielkasten / Gear units											
	E	g	h	h ₅	H	m ₁	m ₃	n ₁	n ₂	n ₃	n ₄	s
3	220	58	175	100	350	290	160	85	65	285	132.5	15
4	270	62.5	200	110	400	355	180	110	85	345	150	19
5	315	97.5	230	150	482	430	220	105	100	405	180	19
6	350	97.5	230	150	482	510	220	105	145	440	180	19
7	385	114	280	190	572	545	260	120	130	500	215	24
8	430	114	280	190	582	650	260	120	190	545	215	24
9	450	140	320	205	662	635	320	145	155	585	245	28
10	500	140	320	215	662	735	320	145	205	635	245	28
11	545	161	380	250	782	775	370	165	180	710	300	35
12	615	161	380	250	790	930	370	165	265	780	300	35

Grootte Size	Afmetingen / Dimensions [mm]									Olie / Oil		Gew. / Weight (kg)	
	Ugaande as / Output									Asafdichting / Shaft seal (L)	Labyrintafdichting / Labyrinth seal (L)		
	JRHH2SH			JRHH2HH			JRHH2DH						
d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅	-	7	5	120	
3	65	125	140	-	-	-	-	-	-	7	5	120	
4	80	140	170	80	140	85	80	140	205	10	7	190	
5	100	165	210	95	165	100	100	165	240	15	11	306	
6	110	165	210	105	165	110	110	165	240	16	12	362	
7	120	195	210	115	195	120	120	195	280	27	21	515	
8	130	195	250	125	195	130	130	195	285	30	23	601	
9	140	235	250	135	235	140	145	235	330	42	33	846	
10	160	235	300	150	235	150	155	235	350	45	34	979	
11	170	270	300	165	270	165	170	270	400	71	58	1361	
12	180	270	300	180	270	180	185	270	405	76	60	1647	

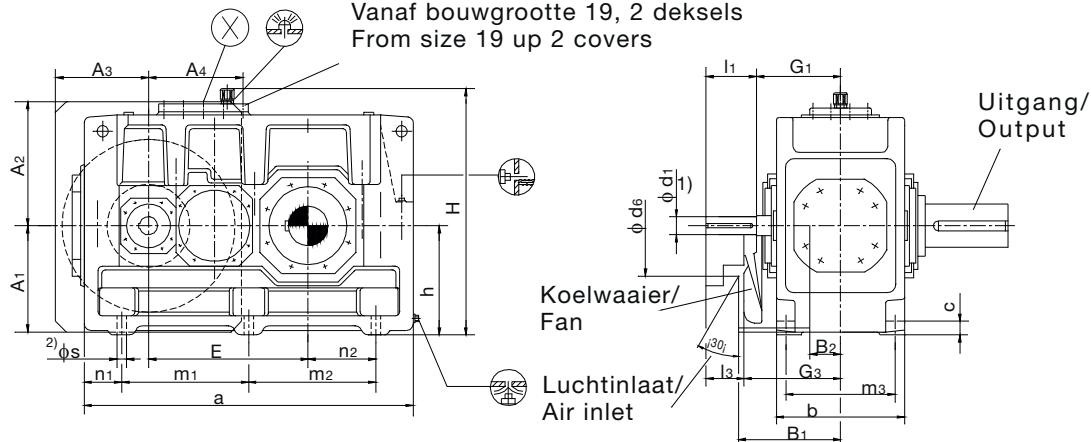
Parallelle tandwielkasten

Tweetraps Horizontaal
Type JRHH2.H / JRHH2.M
Bouwgrootte 13 - 22

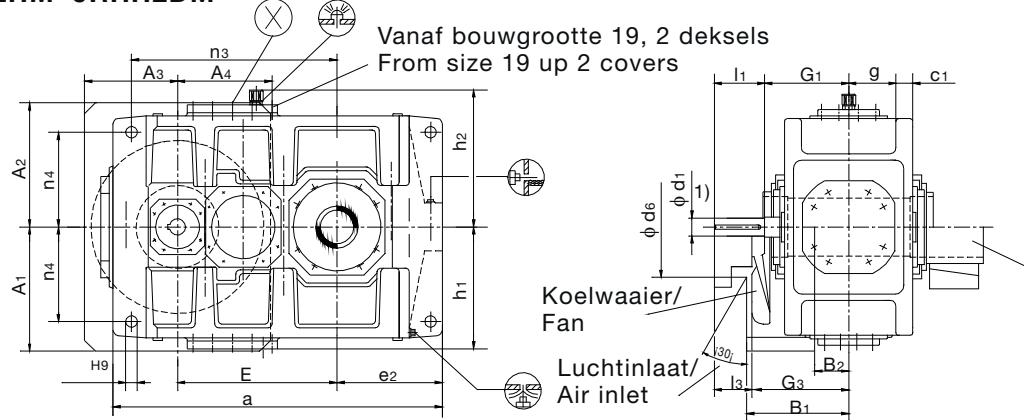
Helical gear units

Two stage Horizontal
Type JRHH2.H / JRHH2.M
Sizes 13 - 22

JRHH2SH JRHH2HH JRHH2DH



JRHH2HM JRHH2DM



Uitgang / Output	Bouwvorm / Design
JRHH2SH Massieve as / Solid shaft	
JRHH2HH³⁾,JRHH2HM³⁾ Holle as / Hollow shaft	
JRHH2DH³⁾,JRHH2DM³⁾ Holle as voor klembus / Hollow shaft for shrink disk	
1) $m6 \leq \phi 100; n6 > \phi 100$ Spie specificaties zie blz 78, 79 2) Verwijder waaierkap voor montage van de bouten 3) Grootte 13 en 15; alleen iN=6.3-18 Grootte 17 en 19; alleen iN6.3-16	1) $m6 \leq \phi 100; n6 > \phi 100$ Keyway, Hubkeyway, Parallel key, see pages 78, 79 2) Remove air guide cover before fitting foundation bolts 3) Sizes 13 and 15: only iN=6.3-18 Sizes 17 and 19: only iN=6.3-16

Parallelle tandwielkasten

Tweetraps Horizontaal
Type JRHH2.H / JRHH2.M
Bouwgroottes 13 - 22

Helical gear units

Two stage Horizontal
Type JRHH2.H / JRHH2.M
Sizes 13 - 22

Grootte Size	Afmetingen / Dimensions [mm]																			
	Ingaande as / Input																			
	i _N =6.3-11.2			i _N =7.1-12.5			i _N =8-14			i _N =12.5-20			i _N =14-22.4			i _N =16-25			G ₁	G ₃
d ₁	I ₁	I ₃	d ₁	I ₁	I ₃	d ₁	I ₁	I ₃	d ₁	I ₁	I ₃	d ₁	I ₁	I ₃	d ₁	I ₁	I ₃			
13	100	205	170						85	170	135								330	365
14						100	205	170								85	170	135	330	365
15	120	210	165						100	210	165								365	410
16				120	210	165						100	210	165					365	410
17	125	245	200						110	210	165								420	465
18				125	245	200						110	210	165					420	465
19	150	245	200						120	210	165								475	520
20				150	245	200						120	210	165					475	520
21	170	290	240						140	250	200								495	545
22				170	290	240						140	250	200					495	545

Grootte Size	Afmetingen / Dimensions [mm]															
	Tandwielkasten / Gear units															
	a	A ₁	A ₂	A ₃	A ₄	b	B ₁	B ₂	c	c ₁	d ₆	D ₅	e ₂	E		
13	1290	430	460	330	365	550	385	135	60	61±2	250	48	405	635		
14	1430	430	460	330	365	550	385	135	60	61±2	250	48	475	705		
15	1550	490	500	370	440	625	430	155	70	72±2	280	55	485	762		
16	1640	490	500	370	440	625	430	155	70	72±2	280	55	530	808		
17	1740	540	565	435	505	690	485	140	80	81±2	280	55	525	860		
18	1860	540	565	435	505	690	485	140	80	81±2	280	55	585	920		
19	2010	600	600	500	450	790	540	190	90	91±2	310	65	590	997		
20	2130	600	600	500	450	790	540	190	90	91±2	310	65	650	1057		
21	2140	600	600	500	450	830	540	190	100	100±2	310	75	655	1067		
22	2250	680	680	500	610	830	565	200	100	100±2	450	75	710	1122		

Grootte Size	Afmetingen / Dimensions [mm]														
	Tandwielkasten / Gear units														
	g	h	h ₁	h ₂	H	m ₁	m ₂	m ₃	n ₁	n ₂	n ₃	n ₄	s		
13	211.5	440	450	460	900	545	545	475	100	305	835	340	35		
14	211.5	440	450	460	900	545	685	475	100	375	905	340	35		
15	238	500	490	500	1000	655	655	535	120	365	1005	375	42		
16	238	500	490	500	1000	655	745	535	120	410	1050	375	42		
17	259	550	555	560	1110	735	735	600	135	390	1145	425	42		
18	259	550	555	560	1110	735	855	600	135	450	1205	425	42		
19	299	620	615	620	1240	850	850	690	155	435	1345	475	48		
20	299	620	615	620	1240	850	970	690	155	495	1405	475	48		
21	310	700	685	690	1390	900	900	720	170	485	1400	520	56		
22	310	700	685	690	1390	900	1010	720	170	540	1455	520	56		

Grootte Size	Afmetingen / Dimensions [mm]								Olie / Oil				Gew. / Weight	
	Uigaande as / Output								JRHH2.H					
	JRHH2SH		JRHH2HH JRHH2HM		JRHH2DH		JRHH2DM		Asafdichting / Shaft seal (L)	Labyrintafdichting / Labyrinth seal (L)	(L)	JRHH2.H	JRHH2.M	
d ₂	G ₂	I ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅			(kg)	(kg)		
13	200	335	350	190	335	190	195	335	480	135	120	110	2040	1917
14	210	335	350	210	335	210	215	335	480	140	130	115	2621	2478
15	230	380	410	230	380	230	235	380	550	210	190	160	3498	3304
16	240	380	410	240	380	240	245	380	550	215	200	165	3728	3534
17	250	415	410	250	415	250	260	415	600	290	260	230	4743	4508
18	270	415	470	275	415	280	285	415	600	300	270	240	5227	4967
19	290	465	470	-	-	285	295	465	670	320	-	300	5355	5100
20	300	465	500	-	-	310	315	465	670	340	-	320	6681	6273
21	320	490	500	-	-	330	335	490	715	320	-	350	8900	
22	340	490	500	-	-	340	345	490	725	340	-	370	9600	

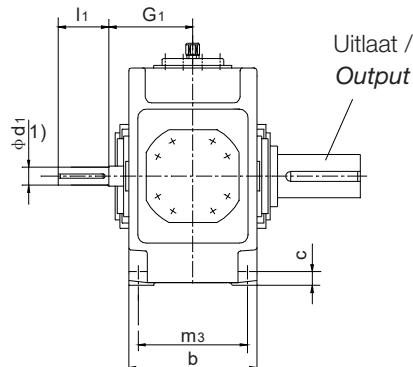
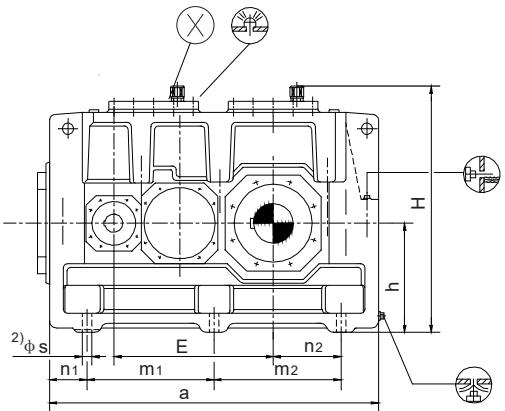
Parallelle tandwielkasten

Tweetraps Horizontaal
Type JRHH2.H / JRHH2.M
Bouwgroote 23 - 28

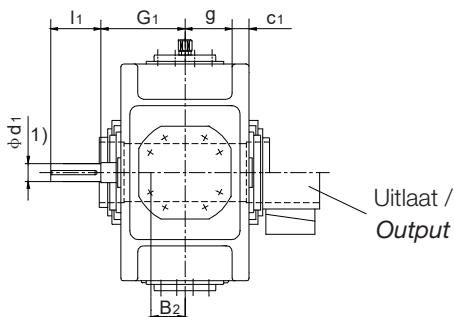
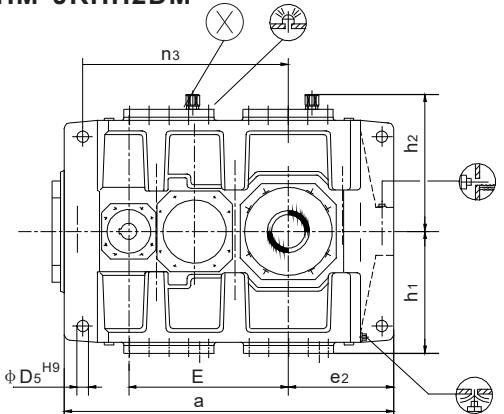
Helical gear units

Two stage Horizontal
Type JRHH2.H / JRHH2.M
Sizes 23 - 28

JRHH2SH JRHH2HH JRHH2DH



JRHH2HM JRHH2DM

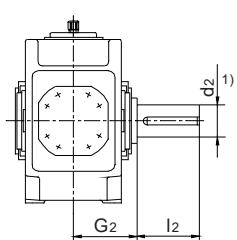


Uitlaat / Output

Bouwvorm / Design

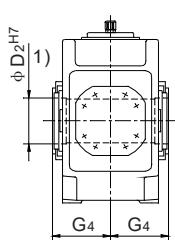
JRHH2SH

Massieve as /
Solid shaft



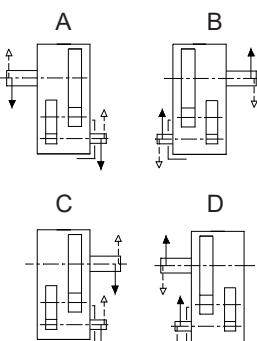
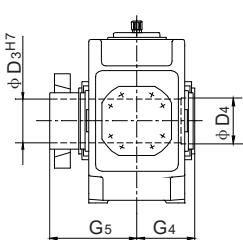
JRHH2HH³⁾, JRHH2HM³⁾

Holle as /
Hollow shaft



JRHH2DH³⁾, JRHH2DM³⁾

Holle as voor klembus/
Hollow shaft for shrink disk



1) $m6 \leq \varnothing 100$; $n6 \geq \varnothing 100$

Voor spie en as specificaties zie blz 88, 89

2) Verwijder voor montage de waaierkap

3) Grootte 13 en 15; alleen iN=6.3-18

Grootte 17 en 19; alleen iN=6.3-16

1) $m6 \leq \varnothing 100$; $n6 \geq \varnothing 100$

Keyway and shaft specifications see page 88, 89

2) Remove air guide cover before fitting foundation bolts

3) Sizes 13 and 15; only iN=6.3-18

Sizes 17 and 19; only iN=6.3-16

Parallelle tandwielkasten

Tweetraps Horizontaal
 Type JRHH2.H / JRHH2.M
 Bouwgrootte 23 - 28

Helical gear units

Two stage Horizontal
 Type JRHH2.H / JRHH2.M
 Sizes 23 - 28

Grootte Size	Afmetingen / Dimensions [mm]															
	Ingaande as / Input															
	$i_N=6.3-10$		$i_N=7.1-11.2$		$i_N=8.0-10$		$i_N=9.0-11.2$		$i_N=11.2-20$		$i_N=12.5-22.4$		$i_N=11.2-20$		$i_N=12.5-22.4$	
	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁
23	190	330							150	250						560
24			190	330							150	250				560
25	200	340							170	300						600
26			200	340							170	300				600
27					240	380							200	340		670
28							240	380							200	340
																670

Grootte Size	Afmetingen / Dimensions [mm]									
	Tandwielkasten / Gear units									
	a	b	c	c ₁	D ₅	e ₂	E	g	h	h ₁
23	2380	930	115	120±2	80	730	1185	342	780	765
24	2510	930	115	120±2	80	795	1250	342	780	765
25	2645	1045	130	120±2	90	790	1325	400	860	860
26	2825	1045	130	120±2	90	880	1415	400	860	860
27	2960	1170	150	145±2	100	880	1485	440	950	950
28	3150	1170	150	145±2	100	975	1580	440	950	950

Grootte Size	Afmetingen / Dimensions [mm]									
	Tandwielkasten / Gear units									
	h ₂	H	m ₁	m ₂	m ₃	n ₁	n ₂	n ₃	n ₄	s
23	785	1565	1010	1010	810	180	550	1560	580	56
24	785	1565	1010	1140	810	180	615	1625	580	56
25	880	1740	1155	1090	910	200	590	1750	660	66
26	880	1740	1155	1270	910	200	680	1840	660	66
27	950	1900	1260	1260	1030	220	660	2000	720	74
28	950	1900	1260	1450	1030	220	755	2095	720	74

Grootte Size	Afmetingen / Dimensions [mm]							Olie / Oil		Gew. / Weight	
	Uigaande as / Output							JRHH2.H	JRHH2.M		
	JRHH2SH		JRHH2DH			JRH2DM				JRHH2.H	JRHH2.M
	d ₂	G ₂	I ₂	D ₃	D ₄	G ₄	G ₅	(L)		(kg)	(kg)
23	360	540	590	370	375	540	800	430	470	11600	11000
24	380	540	590	390	395	540	820	450	500	13000	12300
25	400	605	650	410	415	610	895	640	700	15600	14800
26	420	605	650	430	435	610	925	680	740	17500	16500
27	440	680	690	460	465	680	1000	880	970	22000	21000
28	460	680	750	470	475	680	1020	940	1030	25000	23800

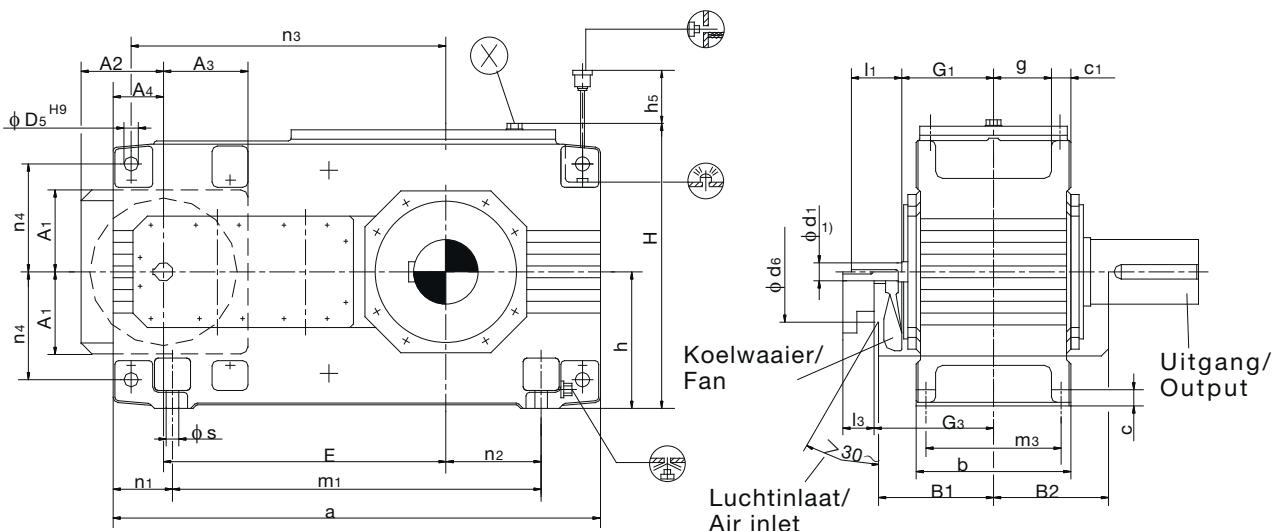
Parallelle tandwielkasten

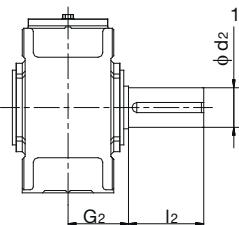
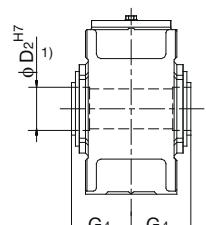
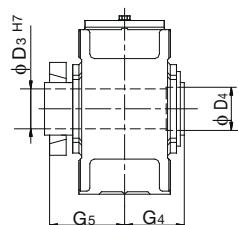
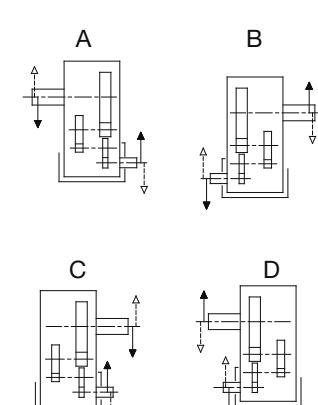
Drietraps Horizontaal
Type JRHH3.H
Bouwgrootte 5 - 12

Helical gear units

Three stage Horizontal
Type JRHH3.H
Sizes 5 - 12

JRHH3SH JRHH3HH JRHH3DH



Uitgang / Output			Bouvorm / Design
JRHH3SH Massieve as / Solid shaft 	JRHH3HH Holle as / Hollow shaft 	JRHH3DH Holle as voor klembus / Hollow shaft for shrink disk 	

1) $m6 \leq \phi 100; n6 > \phi 100$

Spie specificaties zie pag. 78, 79

1) $m6 \leq \phi 100; n6 > \phi 100$

Keyway, Hubkeyway, Parallel key, see pages 78, 79

Parallelle tandwielkasten

Drietraps Horizontaal
 Type JRHH3.H
 Bouwgrootte 5 - 12

Helical gear units

Three stage Horizontal
 Type JRHH3.H
 Sizes 5 - 12

Grootte Size	Afmetingen / Dimensions [mm]																			
	Ingaande as / Input																			
	i _N =25-45			i _N =31.5-56			i _N =50-63			i _N =63-80			i _N =71-90			i _N =90-112			G ₁	G ₃
5	40	70	70				30	50	50				24	40	40				160	220
6				40	70	70				30	50	50				24	40	40	160	220
7	45	80	80				35	60	60				28	50	50				185	250
8				45	80	80				35	60	60				28	50	50	185	250
9	60	125	105				45	100	80				32	80	60				230	300
10				60	125	105				45	100	80				32	80	60	230	300
11	70	120	120				50	80	80				42	70	70				255	330
12				70	120	120				50	80	80				42	70	70	255	330

Grootte Size	Afmetingen / Dimensions [mm]											
	Tandwielkasten / Gear units											
	a	A ₁	A ₂	A ₃	A ₄	b	B ₁	B ₂	c	c ₁	d ₆	D ₅
5	690	137	135	140	80	255	215	175	28	30 ± 1	60	24
6	770	137	135	140	80	255	215	175	28	30 ± 1	60	24
7	845	157	160	180	100	300	245	205	35	36 ± 1	75	28
8	950	157	160	180	100	300	245	205	35	36 ± 1	75	28
9	1000	182	190	205	120	370	295	240	40	45 ± 1.5	90	36
10	1100	182	190	205	120	370	295	240	40	45 ± 1.5	90	36
11	1200	218	220	255	150	430	325	280	50	54 ± 1.5	100	40
12	1355	218	220	255	150	430	325	280	50	54 ± 1.5	100	40

Grootte Size	Afmetingen / Dimensions [mm]											
	Tandwielkasten / Gear units											
	E	g	h	h ₅	H		m ₃	n ₁	n ₂	n ₃	n ₄	s
5	405	97.5	230	130	482	480	220	105	100	455	180	19
6	440	97.5	230	130	482	560	220	105	145	490	180	19
7	495	114	280	170	572	605	260	120	130	560	215	24
8	540	114	280	160	582	710	260	120	190	605	215	24
9	580	140	320	185	662	710	320	145	155	660	245	28
10	630	140	320	185	662	810	320	145	205	710	245	28
11	705	161	380	180	782	870	370	165	180	805	300	35
12	775	161	380	170	790	1025	370	165	265	875	300	35

Grootte Size	Afmetingen / Dimensions [mm]										Olie / Oil (L)	Gew. / Weight (kg)		
	Uitgaande as / Output													
	JRHH3SH			JRHH3HH			JRHH3DH							
d ₂	G ₂	l ₂	D ₂	G ₄		D ₃	D ₄	G ₄	G ₅					
5	100	165	210	95	165	100	100	165	240	15	326			
6	110	165	210	105	165	110	110	165	240	17	372			
7	120	195	210	115	195	120	120	195	280	28	550			
8	130	195	250	125	195	130	130	195	285	30	637			
9	140	235	250	135	235	140	145	235	330	45	892			
10	160	235	300	150	235	150	155	235	350	46	1040			
11	170	270	300	165	270	165	170	270	400	85	1428			
12	180	270	300	180	270	180	185	270	405	90	1708			

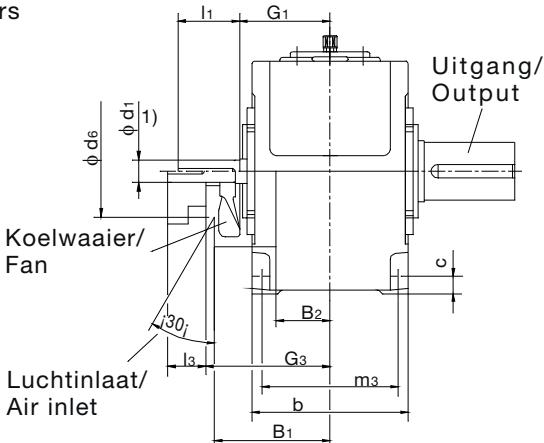
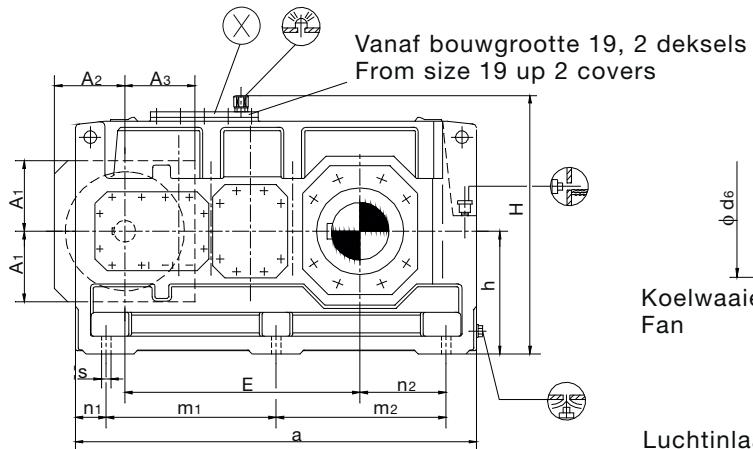
Parallelle tandwielkasten

Drietraps Horizontaal
Type JRHH3.H / JRHH3.M
Bouwgrootte 13 - 22

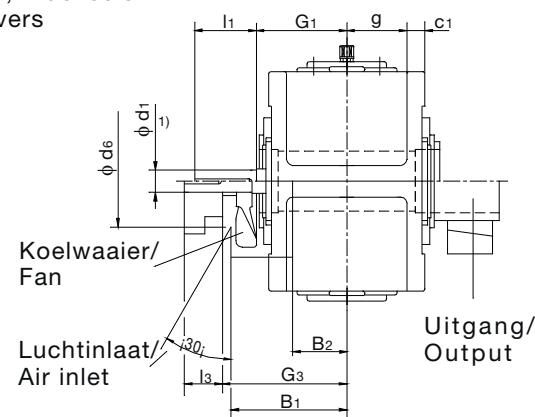
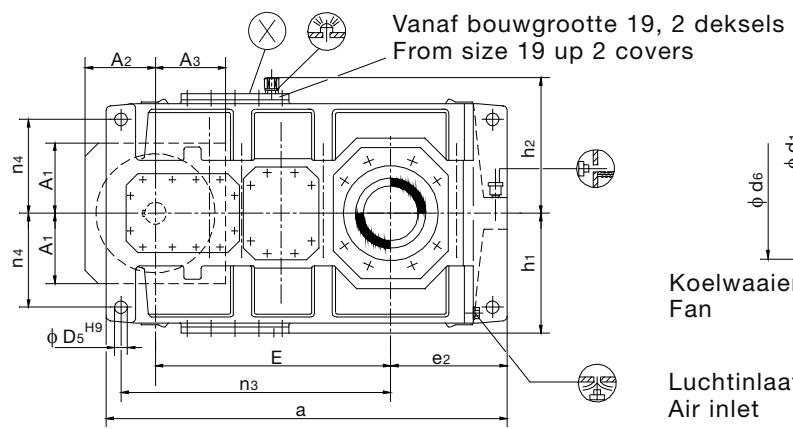
Helical gear units

Three stage Horizontal
Type JRHH3.H / JRHH3.M
Sizes 13 - 22

JRHH3SH JRHH3HH JRHH3DH



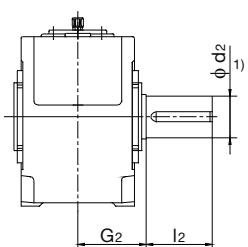
JRHH3HM JRHH3DM



Uitgang / Output

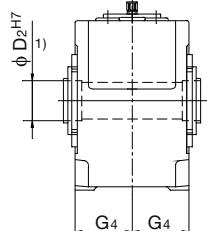
JRHH3SH

Massieve as /
Solid shaft



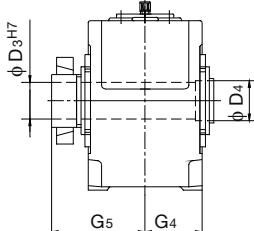
JRHH3HH, JRHH3HM

Holle as /
Hollow shaft

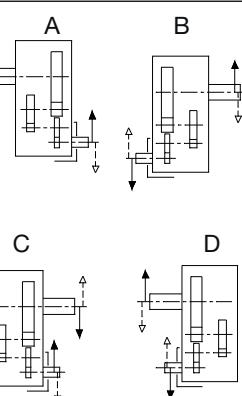


JRHH3DH, JRHH3DM

Holle as voor klembus /
Hollow shaft for shrink disk



Bouwvorm / Design



1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

Parallelle tandwielkasten

Drietraps Horizontaal
 Type JRHH3.H / JRHH3.M
 Bouwgrootte 13 - 22

Helical gear units

Three stage Horizontal
 Type JRHH3.H / JRHH3.M
 Sizes 13 - 22

Grootte Size	Afmetingen / Dimensions [mm]																G ₁	G ₃		
	Ingaande as / Input																			
	i _N =22.4-45			i _N =25-50 i _N =28-56*)			i _N =50-63			i _N =56-71 i _N =63-80*)			i _N =71-90			i _N =80-100 i _N =90-112*)				
	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	G ₁	G ₃	
13	85	160	130				60	135	105				50	110	80			310	385	
14				85	160	130				60	135	105				50	110	310	385	
15	100	200	165				75	140	105				60	140	105			350	420	
16				100	200	165				75	140	105				60	140	350	420	
17	100	200	165				75	140	105				60	140	105			380	450	
18				100	200	165				75	140	105				60	140	380	450	
19	110	200	4)				90	165	4)				75	140	4)			430		
20				110	200	4)				90	165	4)				75	140	430		
21	130	240	4)				90	165	4)				75	140	4)			430		
22				130	240	4)				90	165	4)				75	140	4)		

Grootte Size	Afmetingen / Dimensions [mm]												E	
	Tandwielkasten / Gear units													
	a	A ₁	A ₂	A ₃	b	B ₁	B ₂	c	C ₁	d ₆	D ₅	e ₂		
13	1395	225	225	212	550	380	195	60	61±2	120	48	405	820	
14	1535	225	225	212	550	380	195	60	61±2	120	48	475	890	
15	1680	270	265	252	625	415	205	70	72±2	150	55	485	987	
16	1770	270	265	252	625	415	205	70	72±2	150	55	530	1033	
17	1770	270	265	252	690	445	235	80	81±2	150	55	525	1035	
18	1890	270	265	252	690	445	235	80	81±2	150	55	585	1095	
19	2030				790			90	91±2		65	590	1190	
20	2150				790			90	91±2		65	650	1250	
21	2340				830			100	100±2		75	655	1387	
22	2450				830			100	100±2		75	710	1442	

Grootte Size	Afmetingen / Dimensions [mm]													s	
	Tandwielkasten / Gear units														
	g	h	h ₁	h ₂	H	m ₁	m ₂	m ₃	n ₁	n ₂	n ₃	n ₄			
13	211.5	440	450	460	900	597.5	597.5	475	100	305	940	340	35		
14	211.5	440	450	460	900	597.5	737.5	475	100	375	1010	340	35		
15	238	500	490	500	1000	720	720	535	120	365	1135	375	42		
16	238	500	490	500	1000	720	810	535	120	410	1180	375	42		
17	259	550	555	560	1110	750	750	600	135	390	1175	425	42		
18	259	550	555	560	1110	750	870	600	135	450	1235	425	42		
19	299	620	615	620	1240	860	860	690	155	435	1365	475	48		
20	299	620	615	620	1240	860	980	690	155	495	1425	475	48		
21	310	700	685	690	1390	1000	1000	720	170	485	1600	520	56		
22	310	700	685	690	1390	1000	1110	720	170	540	1655	520	56		

Grootte Size	Afmetingen / Dimensions [mm]										Olie / Oil		Gew. / Weight		
	Uigaande as / Output														
	JRHH3SH			JRHH3HH JRHH3HM		JRHH3DH			JRH3DM		JRHH3.H	JRHH3.M	JRHH3.H	JRHH3.M	
	d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅	(L)	(L)	(kg)	(kg)		
13	200	335	350	190	335	190	195	335	480	160	125	2341	2198		
14	210	335	350	210	335	210	215	335	480	165	130	2678	2540		
15	230	380	410	230	380	230	235	380	550	235	190	3545	3325		
16	240	380	410	240	380	240	245	380	550	245	195	3953	3698		
17	250	415	410	250	415	250	260	415	600	305	240	4651	4335		
18	270	415	470	275	415	280	285	415	600	315	250	5131	4835		
19	290	465	470	-	-	285	295	465	670	420	390	5151	4845		
20	300	465	500	-	-	310	315	465	670	450	415	6783	6375		
21	320	490	500	-	-	330	335	490	715	470	515	9100	8500		
22	340	550	490	-	-	340	345	490	725	490	540	9800	9300		

*) Alleen voor bouwgrootte 14 / Only for size 14

4) op aanvraag / only on request

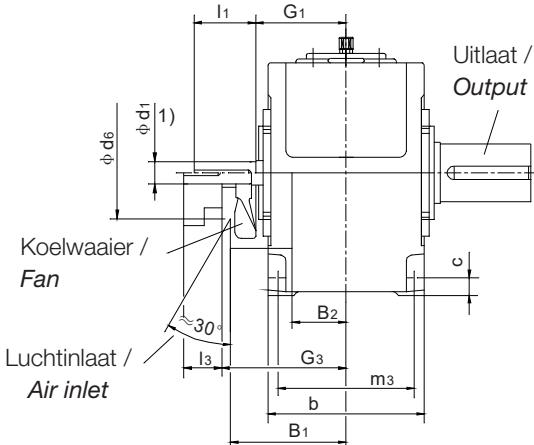
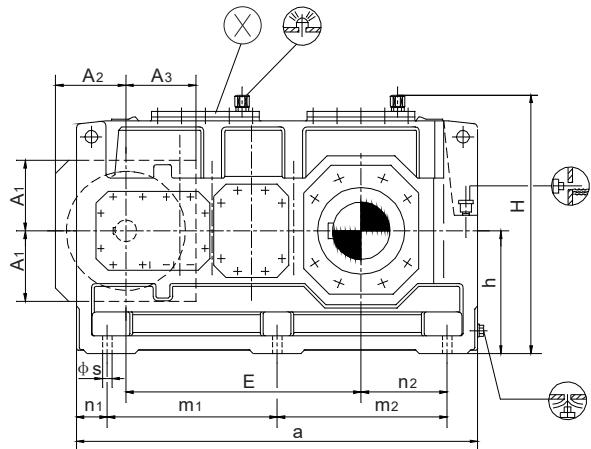
Parallelle tandwielkasten

Drietraps Horizontaal
Type JRHH3.H / JRHH3.M
Bouwgrootte 23 - 28

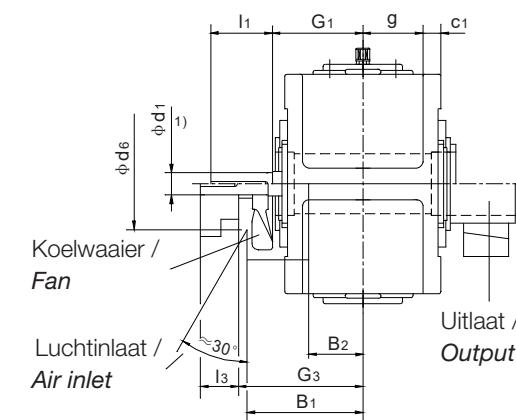
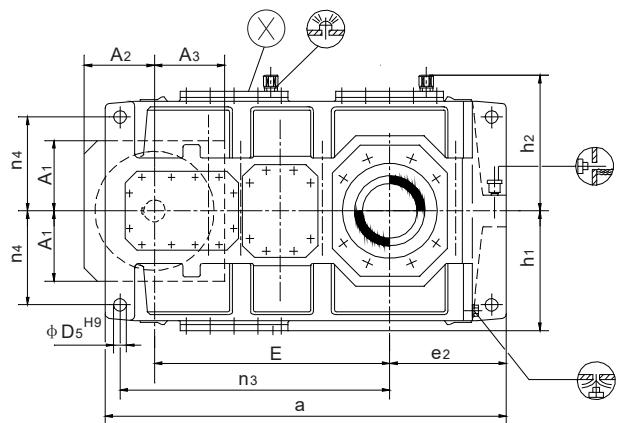
Helical gear units

Three stage Horizontal
Type JRHH3.H / JRHH3.M
Sizes 23 - 28

JRHH3SH JRHH3HH JRHH3DH



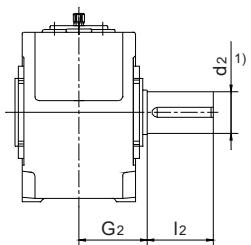
JRHH3HM JRHH3DM



Uitlaat / Output

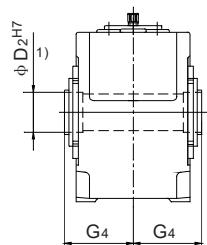
JRHH3SH

Massieve as /
Solid shaft



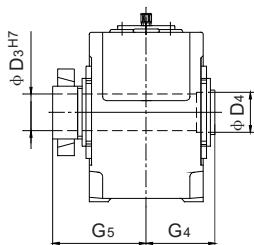
JRHH3HH,JRHH3HM

Holle as /
Hollow shaft

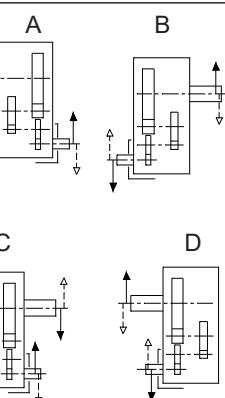


JRHH3DH,JRHH3DM

Holle as voor klembus/
Hollow shaft for shrink disk



Bouwvorm / Design



1) $m6 \leq \varnothing 100; n6 \geq \varnothing 100$

Voor spie en as specificaties zie blz 88, 89

1) $m6 \leq \varnothing 100; n6 \geq \varnothing 100$

Keyway and shaft specifications see page 88, 89

Parallelle tandwielkasten

Drietraps Horizontaal
 Type JRHH3.H / JRHH3.M
 Bouwgrootte 23 - 28

Helical gear units

Three stage Horizontal
 Type JRHH3.H / JRHH3.M
 Sizes 23 - 28

Grootte Size	Afmetingen / Dimensions [mm]																			
	Ingaande as / Input																			
	i _N =22.4-40			i _N =25-45			i _N =45-56			i _N =50-63			i _N =63-90			i _N =71-100			G ₁	G ₃
23	130	255	200				110	220	165				90	185	130				515	570
24				130	255	200				110	220	165				90	185	130	515	570
25	150	255	200				130	255	200				100	580	635				580	635
26				150	255	200				130	255	200				100	580	635	580	635
27	180	295	240				150	255	200				125	255	200				650	705
28				180	295	240				150	255	200				125	255	200	650	705

Grootte Size	Afmetingen / Dimensions [mm]														
	Tandwielkasten / Gear units														
	a	b	A ₁	A ₂	A ₃	b	B ₁	B ₂	c	c ₁	d ₆	D ₅	e ₂	E	
23	2530	960	415	415	415	930	590	305	115	120±2	350	80	730	1505	
24	2660	960	415	415	415	930	590	305	115	120±2	350	80	795	1570	
25	2830	1045	440	440	440	1045	655	335	130	120±2	414	90	790	1695	
26	3010	1045	440	440	440	1045	655	335	130	120±2	414	90	880	1785	
27	3220	1170	510	510	510	1170	725	380	150	140±2	446	100	880	1927	
28	3410	1170	510	510	510	1170	725	380	150	140±2	446	100	975	2022	

Grootte Size	Afmetingen / Dimensions [mm]												
	Tandwielkasten / Gear units												
	g	h	h ₁	h ₂	H	m ₁	m ₂	m ₃	n ₁	n ₂	n ₃	n ₄	s
23	342	780	765	785	1565	1085	1085	810	180	550	1725	580	56
24	342	780	765	785	1565	1085	1215	810	180	615	1790	580	56
25	400	860	860	880	1740	1215	1215	910	200	590	1965	660	66
26	400	860	860	880	1740	1215	1395	910	200	680	2055	660	66
27	440	950	930	950	1740	1390	1390	1030	220	660	2260	720	74
28	440	950	930	950	1740	1390	1580	1030	220	755	2355	720	74

Grootte Size	Afmetingen / Dimensions [mm]							Olie / Oil				Gew. / Weight		
	Uigaande as / Output							JRHH3.H	JRHH3.M					
	JRHH3SH			JRHH3DH		JRHH3DM				(L)	(kg)	(kg)		
	d ₂	G ₂	I ₂	D ₃	D ₄	G ₄	G ₅			(L)	(kg)	(kg)		
23	360	540	590	370	375	540	800	620	690		11800	11200		
24	380	540	590	390	395	540	820	650	725		13200	12500		
25	400	605	650	410	415	610	895	880	970		16100	15300		
26	420	605	650	430	435	610	925	935	1030		17700	16800		
27	440	680	690	460	465	680	1000	1270	1410		22700	21700		
28	460	680	750	470	475	680	1020	1345	1490		25500	24200		

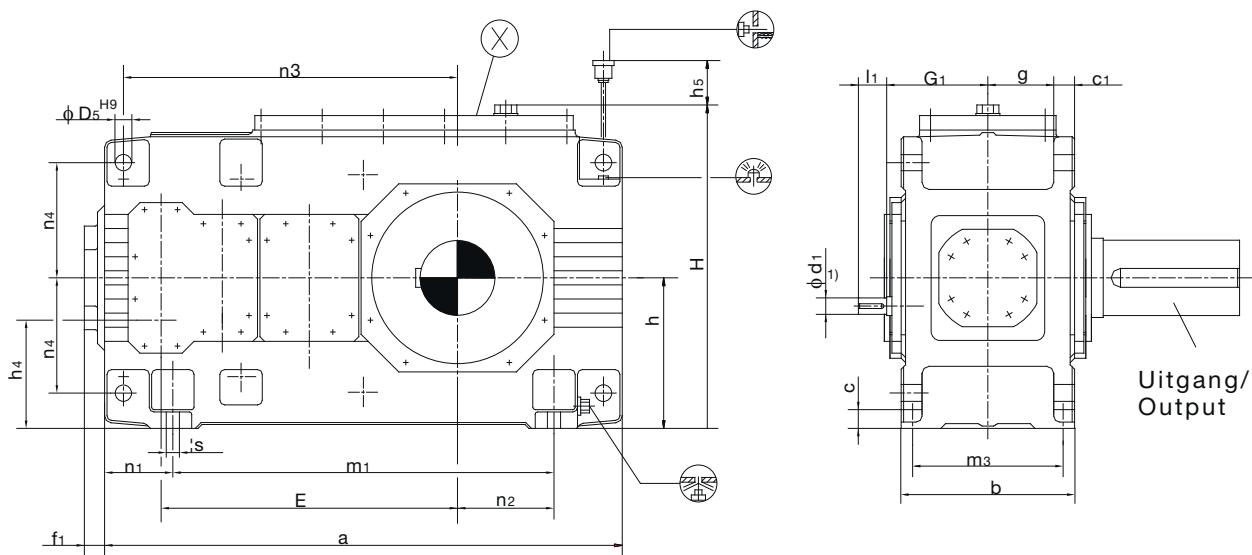
Parallelle tandwielkasten

Viertraps Horizontaal
Type JRHH4.H
Bouwgrootte 7 - 12

Helical gear units

Four stage Horizontal
Type JRHH4.H
Sizes 7 - 12

JRHH4SH JRHH4HH JRHH4DH



Uitgang / Output			Bouwworm / Design
JRHH4SH Massieve as / Solid shaft	JRHH4HH Holle as / Hollow shaft	JRHH4DH Holle as voor klembus / Hollow shaft for shrink disk	
 1) $m6 \leq \text{Ø}100; n6 \geq \text{Ø}100$ Voor spie en as specificaties zie blz 88, 89	 1) $m6 \leq \text{Ø}100; n6 \geq \text{Ø}100$ Keyway and shaft specifications see page 88, 89	 1) $m6 \leq \text{Ø}100; n6 \geq \text{Ø}100$ Keyway and shaft specifications see page 88, 89	

Parallelle tandwielkasten

Viertraps Horizontaal
Type JRHH4.H
Bouwgrootte 7 - 12

Helical gear units

Four stage Horizontal
Type JRHH4.H
Sizes 7 - 12

Grootte Size	Afmetingen / Dimensions [mm]								
	Ingaande as / Input								
	$i_N=100-180$		$i_N=125-224$		$i_N=200-355$		$i_N=250-450$		G ₁
d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁		
7	30	50			24	40			180
8			30	50			24	40	180
9	35	60			28	50			215
10			35	60			28	50	215
11	45	100			32	80			250
12			45	100			32	80	250

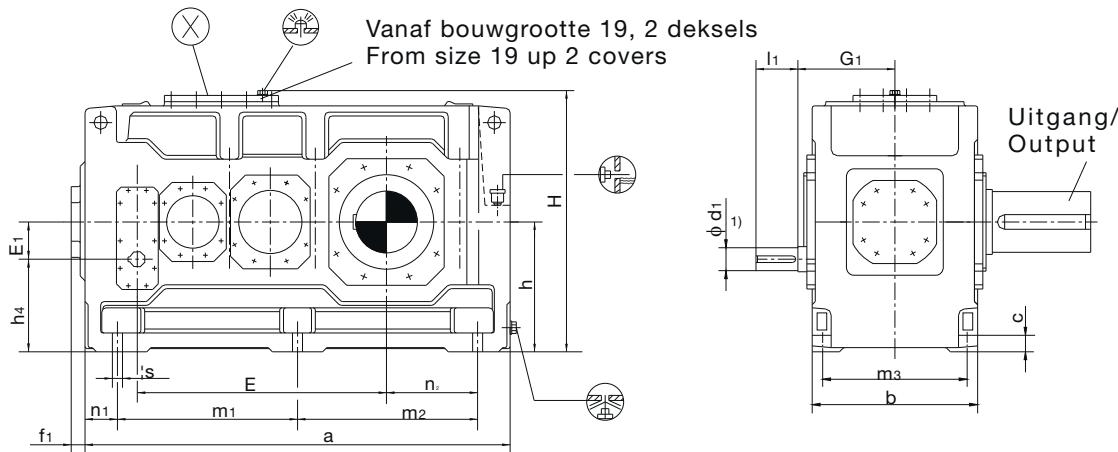
Grootte Size	Afmetingen / Dimensions [mm]																		
	Tandwielkasten / Gear units																		
	a	b	c	c ₁	D ₅	E	f ₁	g	h	h ₄	h ₅	H	m ₁	m ₃	n ₁	n ₂	n ₃	n ₄	s
7	845	300	35	36±1	28	495	37	114	280	200	140	572	605	260	120	130	560	215	24
8	950	300	35	36±1	28	540	37	114	280	200	140	582	710	260	120	190	605	215	24
9	1000	370	40	45±1.5	36	580	43	140	320	230	150	662	710	320	145	155	660	245	28
10	1100	370	40	45±1.5	36	630	43	140	320	230	150	662	810	320	145	205	710	245	28
11	1200	430	50	54±1.5	40	705	47	161	380	270	165	782	870	370	165	180	805	300	35
12	1355	430	50	54±1.5	40	775	47	161	380	270	165	790	1025	370	165	265	875	300	35

Grootte Size	Afmetingen / Dimensions [mm]								Olie / Oil (L)	Gew. / Weight (kg)		
	Uigaande as / Output											
	JRHH4SH			JRHH4HH		JRHH4DH						
d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅				
7	120	195	210	115	195	120	120	195	280	25	561	
8	130	195	250	125	195	130	130	195	285	27	657	
9	140	235	250	135	235	140	145	235	330	48	892	
10	160	235	300	150	235	150	155	235	350	50	1030	
11	170	270	300	165	270	165	170	270	400	80	1489	
12	180	270	300	180	270	180	185	270	405	87	1759	

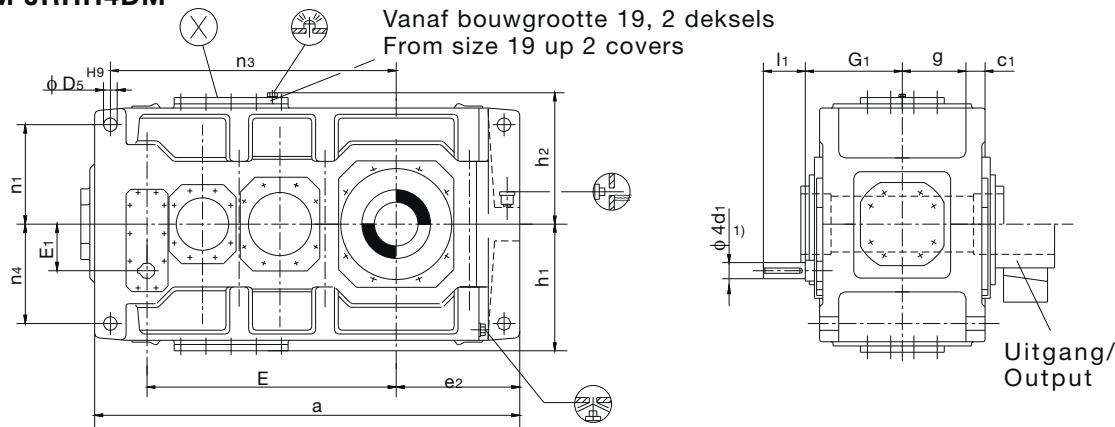
Parallelle tandwielkasten
Viertraps Horizontaal
Type JRHH4.H / JRHH4.M
Bouwgrootte 13 - 22

Helical gear units
Four stage Horizontal
Type JRHH4.H / JRHH4.M
Sizes 13 - 22

JRHH4SH JRHH4HH JRHH4DH



JRHH4HM JRHH4DM



Uitgang / Output	Bouwvorm / Design
JRHH4SH Massieve as / Solid shaft	A
JRHH4HH,JRHH4HM Holle as / Hollow shaft	B
JRHH4DH,JRHH4DM Holle as voor klembus / Hollow shaft for shrink disk	C D

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

Parallelle tandwielkasten

Viertraps Horizontaal
Type JRHH4.H / JRHH4.M
Bouwgrootte 13 - 22

Helical gear units

Four stage Horizontal
Type JRHH4.H / JRHH4.M
Sizes 13 - 22

Grootte Size	Afmetingen / Dimensions [mm]											
	Ingaande as / Input											
	$i_N=100-180$		$i_N=112-200$		$i_N=125-224$		$i_N=200-355$		$i_N=224-400$		$i_N=250-450$	
	d_1	l_1	d_1	l_1	d_1	l_1	d_1	l_1	d_1	l_1	G_1	
13	50	100					38	80			305	
14					50	100				38	80	305
15	60	135					50	110				345
16			60	135					50	110		345
17	60	105					50	80				380
18			60	105					50	80		380
19	75	105					60	105				440
20			75	105					60	105		440
21	90	165					70	140				460
22			90	165					70	140		460

Grootte Size	Afmetingen / Dimensions [mm]										
	Tandwielkasten / Gear units										
	a	b	c	c_1	D_5	e_2	E	E_1	f_1	g	h
13	1395	550	60	61 ± 2	48	405	820	130	47	211.5	440
14	1535	550	60	61 ± 2	48	475	890	130	47	211.5	440
15	1680	625	70	72 ± 2	55	485	987	160	56	238	500
16	1770	625	70	72 ± 2	55	530	1033	160	56	238	500
17	1770	690	80	81 ± 2	55	525	1035	160	53	259	550
18	1890	690	80	81 ± 2	55	585	1095	160	53	259	550
19	2030	790	90	91 ± 2	65	590	1190	185	53	299	620
20	2150	790	90	91 ± 2	65	650	1250	185	53	299	620
21	2340	830	100	100 ± 2	75	655	1387	225	62	310	700
22	2450	830	100	100 ± 2	75	710	1442	225	62	310	700

Grootte Size	Afmetingen / Dimensions [mm]											
	Tandwielkasten / Gear units											
	h_1	h_2	h_4	H	m_1	m_2	m_3	n_1	n_2	n_3	n_4	s
13	450	460	310	900	597.5	597.5	475	100	305	940	340	35
14	450	460	310	900	597.5	737.5	475	100	375	1010	340	35
15	490	500	340	1000	720	720	535	120	365	1135	375	42
16	490	500	340	1000	720	810	535	120	410	1180	375	42
17	555	560	390	1110	750	750	600	135	390	1175	425	42
18	555	560	390	1110	750	870	600	135	450	1235	425	42
19	615	620	435	1240	860	860	690	155	435	1365	475	48
20	615	620	435	1240	860	980	690	155	495	1425	475	48
21	685	620	435	1390	1000	1000	720	170	485	1600	520	56
22	685	690	475	1390	1000	1110	720	170	490	1655	520	56

Grootte Size	Afmetingen / Dimensions [mm]								Olie / Oil		Gew. / Weight			
	Uitgaande as / Output													
	JRHH4SH			JRHH4HH JRHH4HM		JRHH4DH			JRHH4DM		JRHH4.H	JRHH4.M	JRHH4.H	JRHH4.M
	d_2	G_2	l_2	D_2	G_4	D_3	D_4	G_4	G_5	(L)	(L)	(kg)	(kg)	
13	200	335	350	190	335	190	195	335	480	130	120	2437	2315	
14	210	335	350	210	335	210	215	335	480	140	125	2784	2652	
15	230	380	410	230	380	230	235	380	550	230	170	3707	3508	
16	240	380	410	240	380	240	245	380	550	235	175	4044	3814	
17	250	415	410	250	415	250	260	415	600	290	225	4773	4533	
18	270	415	470	275	415	280	285	415	600	305	230	5288	5013	
19	290	465	470	-	-	285	295	465	670	360	310	5814	5406	
20	300	465	500	-	-	310	315	465	670	380	330	6528	6069	
21	320	490	500	-	-	330	334	490	715	395	430	9200	8600	
22	340	490	500	-	-	340	345	490	725	420	450	9900	9400	

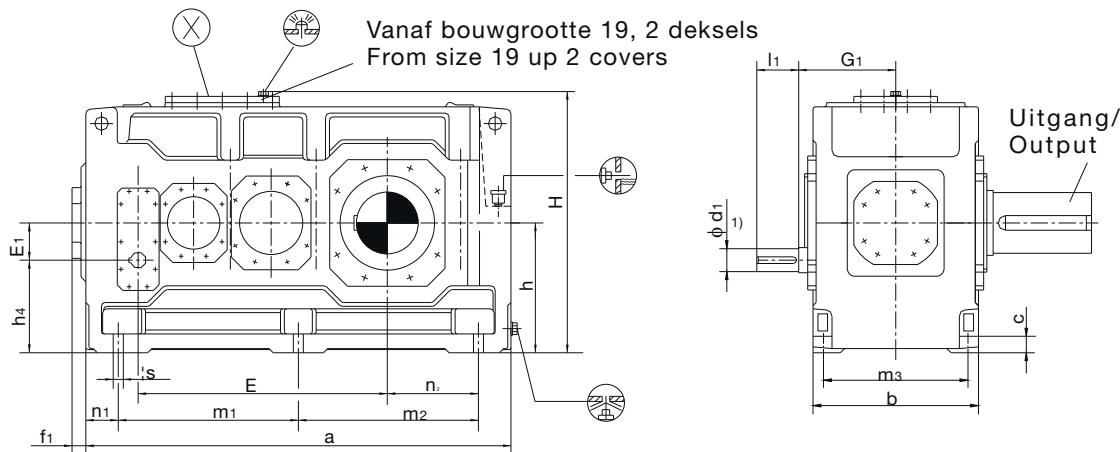
Parallelle tandwielkasten

Viertraps Horizontaal
Type JRHH4.H / JRHH4.M
Bouwgrootte 23 - 28

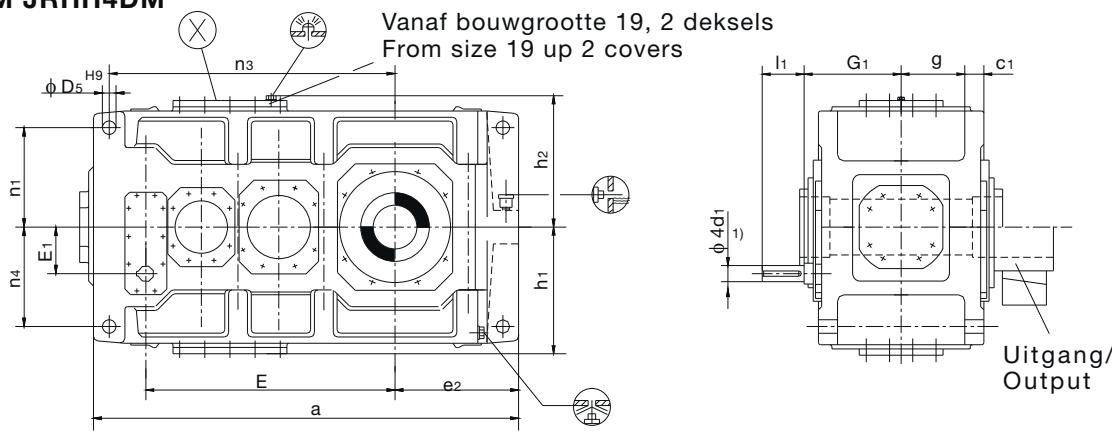
Helical gear units

Four stage Horizontal
Type JRHH4.H / JRHH4.M
Sizes 23 - 28

JRHH4SH JRHH4HH JRHH4DH



JRHH4HM JRHH4DM



Uitgang / Output	Bouwvorm / Design
JRHH4SH Massieve as / Solid shaft	A
JRHH4HH,JRHH4HM Holle as / Hollow shaft	B
JRHH4DH,JRHH4DM Holle as voor klembus / Hollow shaft for shrink disk	C
	D

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

Parallelle tandwielkasten

 Viertraps Horizontaal
 Type JRHH4.H / JRHH4.M
 Bouwgrootte 23 - 28

Helical gear units

 Four stage Horizontal
 Type JRHH4.H / JRHH4.M
 Sizes 23 - 28

Grootte Size	Afmetingen / Dimensions [mm]								G ₃	
	Ingaande as / Input									
	i _N =100-160		i _N =112-180		i _N =180-355		i _N =200-400			
	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁		
23	90	165			70	140			515	
24			90	165			70	140	515	
25	100	205			85	170			575	
26			100	205			85	170	575	
27	120	210			100	210			645	
28			120	210			100	210	645	

Grootte Size	Afmetingen / Dimensions [mm]											
	Tandwielkasten / Gear units											
	a	b	c	c ₁	D ₅	e ₂	E	E ₁	f ₁	g	h ₁	
23	2530	930	115	120±2	80	730	1505	225	35	342	780	765
24	2660	930	115	120±2	80	795	1570	225	35	342	780	765
25	2830	1045	130	120±2	90	790	1695	265	35	400	860	860
26	3010	1045	130	120±2	90	880	1785	265	35	400	860	860
27	3220	1170	150	145±2	100	880	1927	320	40	440	950	930
28	3410	1170	150	145±2	100	975	2022	320	40	440	950	930

Grootte Size	Afmetingen / Dimensions [mm]										
	Tandwielkasten / Gear units										
	h ₂	h ₄	H	m ₁	m ₂	m ₃	n ₁	n ₂	n ₃	n ₄	s
23	785	555	1565	1085	1085	810	180	550	1725	580	56
24	785	555	1565	1085	1215	810	180	615	1790	580	56
25	880	595	1740	1215	1215	910	200	590	1965	660	66
26	880	595	1740	1215	1395	910	200	680	2055	660	66
27	950	630	1900	1390	1390	1030	220	660	2260	720	74
28	950	630	1900	1390	1580	1030	220	755	2355	720	74

Grootte Size	Afmetingen / Dimensions [mm]							Olie / Oil		Gew. / Weight	
	Uigaande as / Output										
	JRHH4SH			JRHH4DH		JRHH4DM		JRHH4.H	JRHH4.M	JRHH4.H	JRHH4.M
	d ₂	G ₂	l ₂	D ₃	D ₄	G ₄	G ₅			(L)	(kg)
23	360	540	590	370	375	540	800	520	565	12000	11400
24	380	540	590	390	395	540	820	550	600	13500	12800
25	400	605	650	410	415	610	895	735	800	16300	15500
26	420	605	650	430	435	610	925	780	850	18000	17100
27	440	680	690	460	465	680	1000	1055	1150	23000	22000
28	460	680	750	470	475	680	1020	1110	1210	26200	25000

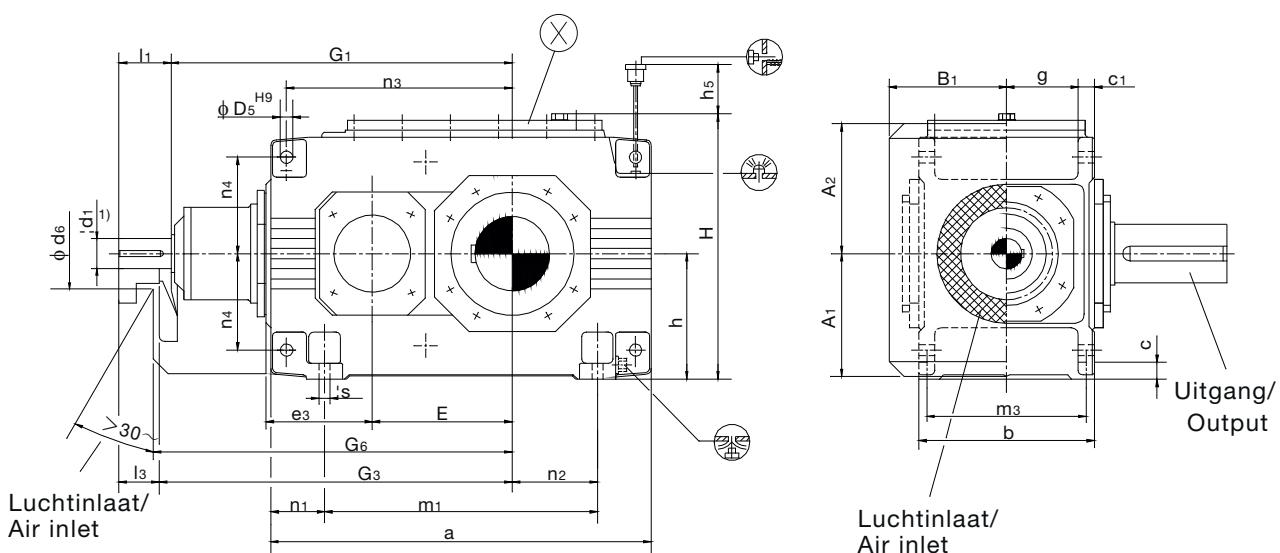
Kegeltandwielkasten

Tweetraps Horizontaal
Type JRHB2.H
Bouwgrootte 4 - 12

Bevel gear units

Two stage Horizontal
Type JRHB2.H
Sizes 4 - 12

JRHB2SH JRHB2HH JRHB2DH



Uitgang / Output			Bouwvorm / Design
JRHB2SH Massieve as / Solid shaft	JRHB2HH Holle as / Hollow shaft	JRHB2DH Holle as voor klembus / Hollow shaft for shrink disk	

1) $m_6 \leq \emptyset 100$; $n_6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

1) $m_6 \leq \emptyset 100$; $n_6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

Kegeltandwielkasten

Tweetraps Horizontaal
Type JRHB2.H
Bouwgrootte 4 - 12

Bevel gear units

Two stage Horizontal
Type JRHB2.H
Sizes 4 - 12

Grootte Size	Afmetingen / Dimensions [mm]							
	Ingaande as / Input							
	i _N =5-11.2			i _N =6.3-14			G ₁	G ₃
d ₁	l ₁	l ₃	d ₁	l ₁	l ₃			
4	45	100	80				465	485
5	55	110	80				535	565
6				55	110	80	570	600
7	70	135	105				640	670
8				70	135	105	685	715
9	80	165	130				755	790
10				80	165	130	805	840
11	90	165	130				925	960
12				90	165	130	995	1030

Grootte Size	Afmetingen / Dimensions [mm]											
	Tandwielkasten / Gear units											
	a	A ₁	A ₂	b	B ₁	c	c ₁	D ₅	d ₆	e ₃	E	g
4	515	195	200	270	188	28	30 ± 1	24	150	160	160	105
5	565	220	235	320	215	28	30 ± 1	24	160	185	185	130
6	645	220	235	320	215	28	30 ± 1	24	160	185	220	130
7	690	270	285	380	250	35	36 ± 1	28	210	225	225	154
8	795	270	285	380	250	35	36 ± 1	28	210	225	270	154
9	820	310	325	440	270	40	48 ± 1.5	36	195	265	265	172
10	920	310	325	440	270	40	48 ± 1.5	36	195	265	315	172
11	975	370	385	530	328	50	54 ± 1.5	40	210	320	320	211
12	1130	370	385	530	328	50	54 ± 1.5	40	210	320	390	211

Grootte Size	Afmetingen / Dimensions [mm]										
	Tandwielkasten / Gear units										
	G ₆	h	h ₅	H	m ₁	m ₃	n ₁	n ₂	n ₃	n ₄	s
4	495	200	80	400	295	235	110	85	285	150	19
5	575	230	150	482	355	285	105	100	330	180	19
6	610	230	150	482	435	285	105	145	365	180	19
7	685	280	180	582	450	340	120	130	405	215	24
8	730	280	190	582	555	340	120	190	450	215	24
9	805	320	205	662	530	390	145	155	480	245	28
10	855	320	215	662	630	390	145	205	530	245	28
11	980	380	240	790	645	470	165	180	580	300	35
12	1050	380	250	790	800	470	165	265	650	300	35

Grootte Size	Afmetingen / Dimensions [mm]								Olie / Oil		Gew. / Weight (kg)			
	Uigaande as / Output								Asafdichting / Shaft seal (L)	Labyrintafdichting / Labyrinth seal (L)				
	JRHB2SH		JRHB2HH		JRHB2DH									
d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅						
4	80	170	170	80	170	85	85	170	235	10	-	235		
5	100	200	210	95	200	100	100	200	275	16	14	367		
6	110	200	210	105	200	110	110	200	275	19	15	418		
7	120	235	210	115	235	120	120	235	320	31	28	627		
8	130	235	250	125	235	130	130	235	325	34	29	714		
9	140	270	250	135	270	140	145	270	365	48	38	1020		
10	160	270	300	150	270	150	155	270	385	50	40	1178		
11	170	320	300	165	320	165	170	320	450	80	65	1672		
12	180	320	300	180	320	180	185	320	455	95	71	1948		

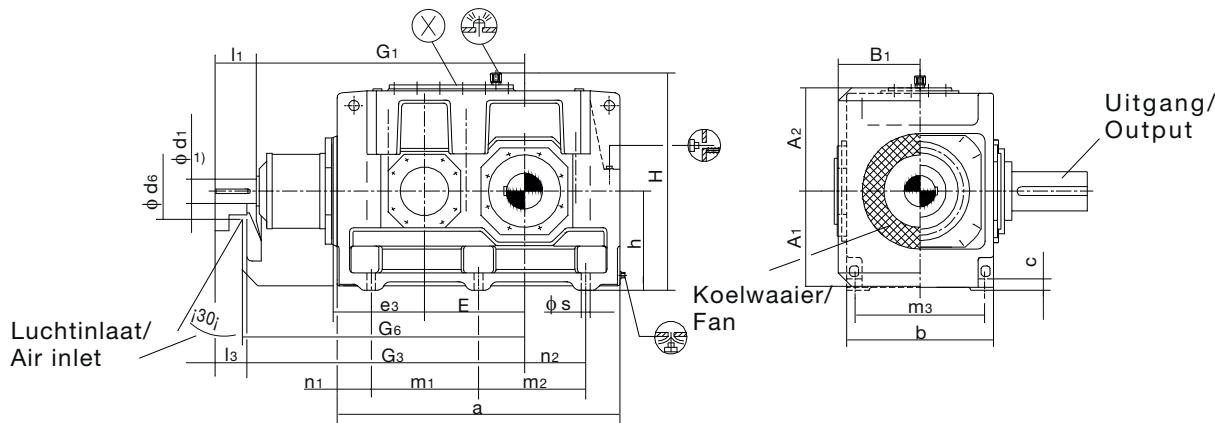
Kegeltandwielkasten

Tweetraps Horizontaal
Type JRHB2.H / JRHB2.M
Bouwgrootte 13 - 18

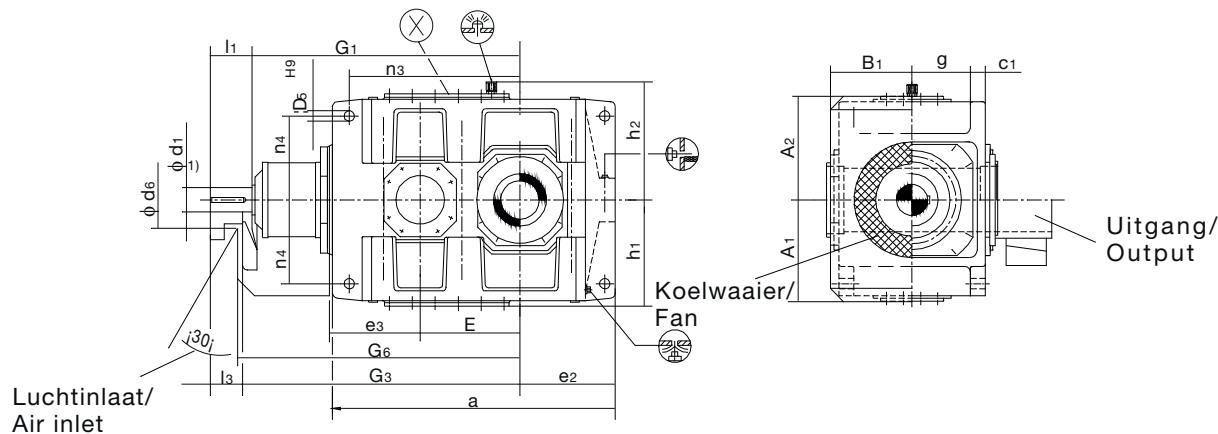
Bevel gear units

Two stage Horizontal
Type JRHB2.H / JRHB2.M
Sizes 13 - 18

JRHB2SH JRHB2HH JRHB2DH



JRHB2HM JRHB2DM



Uitgang / Output		Bouwvorm / Design
JRHB2SH Massieve as / Solid shaft	JRHB2HH,JRHB2HM Holle as / Hollow shaft	JRHB2DH,JRHB2DM Holle as voor klembus / Hollow shaft for shrink disk

1) $m6 \leq \varnothing 100$; $n6 \geq \varnothing 100$
Voor spie en as specificaties zie blz 88, 89

1) $m6 \leq \varnothing 100$; $n6 \geq \varnothing 100$
Keyway and shaft specifications see page 88, 89

Kegeltandwielkasten

Tweeraps Horizontaal
Type JRHB2.H / JRHB2.M
Bouwgrootte 13 - 18

Bevel gear units

Two stage Horizontal
Type JRHB2.H / JRHB2.M
Sizes 13 - 18

Grootte Size	Afmetingen / Dimensions [mm]																
	Ingaande as / Input																
	$i_N=5-11.2$			$i_N=5.6-11.2$			$i_N=5.6-12.5$			$i_N=6.3-14$			$i_N=7.1-12.5$			G ₁	G ₃
	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃		
13	110	205	165													1070	1110
14										110	205	165				1140	1180
15	130	245	200							130	245	200				1277	1322
16							130	245	200							1323	1368
17				150	245	200										1435	1480
18													150	245	200	1495	1540

Grootte Size	Afmetingen / Dimensions [mm]												
	Tandwielkasten / Gear units												
	a	A ₁	A ₂	b	B ₁	c	c ₁	d ₆	D ₅	e ₂	e ₃	E	g
13	1130	430	450	655	375	60	61 ± 2	245	48	405	380	370	264
14	1270	430	450	655	375	60	61 ± 2	245	48	475	380	440	264
15	1350	490	495	765	435	70	72 ± 2	280	55	485	450	442	308
16	1440	490	495	765	435	70	72 ± 2	280	55	530	450	488	308
17	1490	540	555	885	505	80	81 ± 2	380	65	525	510	490	356
18	1610	540	555	885	505	80	81 ± 2	380	65	585	510	550	356

Grootte Size	Afmetingen / Dimensions [mm]												
	Tandwielkasten / Gear units												
	G ₆	h	h ₁	h ₂	H	m ₁	m ₂	m ₃	n ₁	n ₂	n ₃	n ₄	s
13	1130	440	450	460	900	465	465	580	100	305	675	340	35
14	1200	440	450	460	900	465	605	580	100	375	745	340	35
15	1340	500	490	500	1000	555	555	670	120	365	805	375	42
16	1385	500	490	500	1000	555	645	670	120	410	850	375	42
17	1500	550	555	560	1110	610	610	780	135	390	895	420	48
18	1560	550	555	560	1110	610	730	780	135	450	955	420	48

Grootte Size	Afmetingen / Dimensions [mm]									Olie / Oil		Gew. / Weight		
	Uigaande as / Output									JRHB2.H				
	JRHB2SH			JRHB2HH JRHB2HM		JRHB2DH JRB2DM				Asafdichting / Shaft seal (L)	Labyrintafdichting / Labyrinth seal (L)			
	d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅	(L)	(L)			
13	200	390	350	-	-	-	-	-	-	140	125	120	2499	2397
14	210	390	350	210	390	210	215	390	535	155	140	130	2881	2779
15	230	460	410	-	-	-	-	-	-	220	195	180	4069	3870
16	240	460	410	240	450	240	245	450	620	230	205	190	4431	4243
17	250	540	410	-	-	-	-	-	-	320	280	260	5732	5426
18	270	540	470	275	510	280	285	510	700	335	300	275	6273	5977

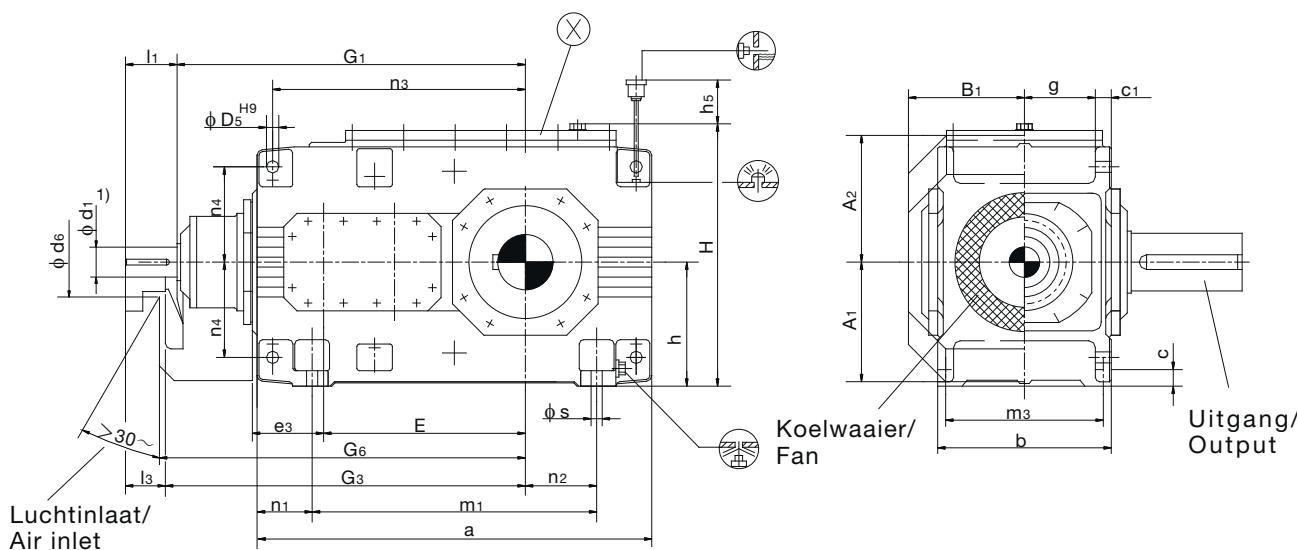
Kegeltandwielkasten

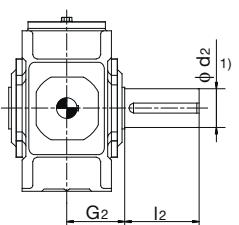
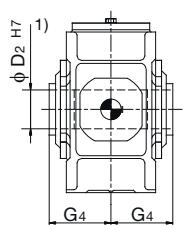
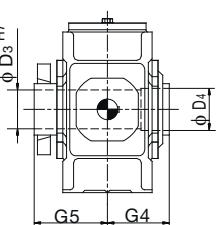
Drietraps Horizontaal
Type JRHB3.H
Bouwgrootte 4 - 12

Bevel gear units

Three stage Horizontal
Type JRHB3.H
Sizes 4 - 12

JRHB3SH JRHB3HH JRHB3DH



Uitgang / Output		Bouwvorm / Design
JRHB3SH Massieve as / Solid shaft	JRHB3HH Holle as / Hollow shaft	JRHB3DH Holle as voor klembus / Hollow shaft for shrink disk
		

1) $m6 \leq \varnothing 100$; $n6 \geq \varnothing 100$

Voor spie en as specificaties zie blz 88, 89

1) $m6 \leq \varnothing 100$; $n6 \geq \varnothing 100$

Keyway and shaft specifications see page 88, 89

Kegeltandwielkasten

Drietraps Horizontaal
 Type JRHB3.H
 Bouwgrootte 4 - 12

Bevel gear units

Three stage Horizontal
 Type JRHB3.H
 Sizes 4 - 12

Grootte Size	Afmetingen / Dimensions [mm]													
	Ingaande as / Input													
	i _N =12.5-45			i _N =16-56			i _N =50-71			i _N =63-90			G ₁	G ₃
d ₁	l ₁	l ₃	d ₁	l ₁	l ₃					d ₁	l ₁	l ₃		
4	30	70	50				25	60	40				500	520
5	35	80	60				28	60	40				575	595
6			35	80	60					28	60	40	610	630
7	45	100	80				35	80	60				690	710
8			45	100	80					35	80	60	735	755
9	55	110	80				40	100	70				800	830
10			55	110	80					40	100	70	850	880
11	70	135	105				50	110	80				960	990
12			70	135	105					50	110	80	1030	1060

Grootte Size	Afmetingen / Dimensions [mm]											
	Tandwielkasten / Gear units											
	a	A ₁	A ₂	b	B ₁	c		d ₆	D ₅	e ₃	E	g
4	565	195	200	215	143	28	30 ± 1	110	24	110	270	77.5
5	640	220	235	255	168	28	30 ± 1	130	24	130	315	97.5
6	720	220	235	255	168	28	30 ± 1	130	24	130	350	97.5
7	785	275	275	300	193	35	36 ± 1	165	28	160	385	114
8	890	275	275	300	193	35	36 ± 1	165	28	160	430	114
9	925	315	325	370	231	40	45 ± 1.5	175	36	185	450	140
10	1025	315	325	370	231	40	45 ± 1.5	175	36	185	500	140
11	1105	370	385	430	263	50	54 ± 1.5	190	40	225	545	161
12	1260	370	385	430	263	50	54 ± 1.5	190	40	225	615	161

Grootte Size	Afmetingen / Dimensions [mm]										
	Tandwielkasten / Gear units										
	G ₆	h	h ₅	H	m ₁	m ₃	n ₁	n ₂	n ₃	n ₄	s
4	530	200	100	415	355	180	105	85	345	150	19
5	605	230	130	482	430	220	105	100	405	180	19
6	640	230	130	482	510	220	105	145	440	180	19
7	720	280	170	572	545	260	120	130	500	215	24
8	765	280	60	582	650	260	120	190	545	215	24
9	845	320	175	662	635	320	145	155	585	245	28
10	895	320	175	662	735	320	145	205	635	245	28
11	1010	380	220	782	775	370	165	180	710	300	35
12	1080	380	210	790	930	370	165	265	780	300	35

Grootte Size	Afmetingen / Dimensions [mm]									Olie / Oil (L)	Gew. / Weight (kg)		
	Uitgaande as / Output												
	JRHB3SH			JRHB3HH			JRHB3DH						
d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅					
4	80	140	170	80	140	85	85	140	205	9	210		
5	100	165	210	95	165	100	100	165	240	14	331		
6	110	165	210	105	165	110	110	165	240	15	387		
7	120	195	210	115	195	120	120	195	280	25	561		
8	130	195	250	125	195	130	130	195	285	28	647		
9	140	235	250	135	235	140	145	235	330	40	907		
10	160	235	300	150	235	150	155	235	350	42	1040		
11	170	270	300	165	270	165	170	270	400	66	1484		
12	180	270	300	180	270	180	185	270	405	72	1764		

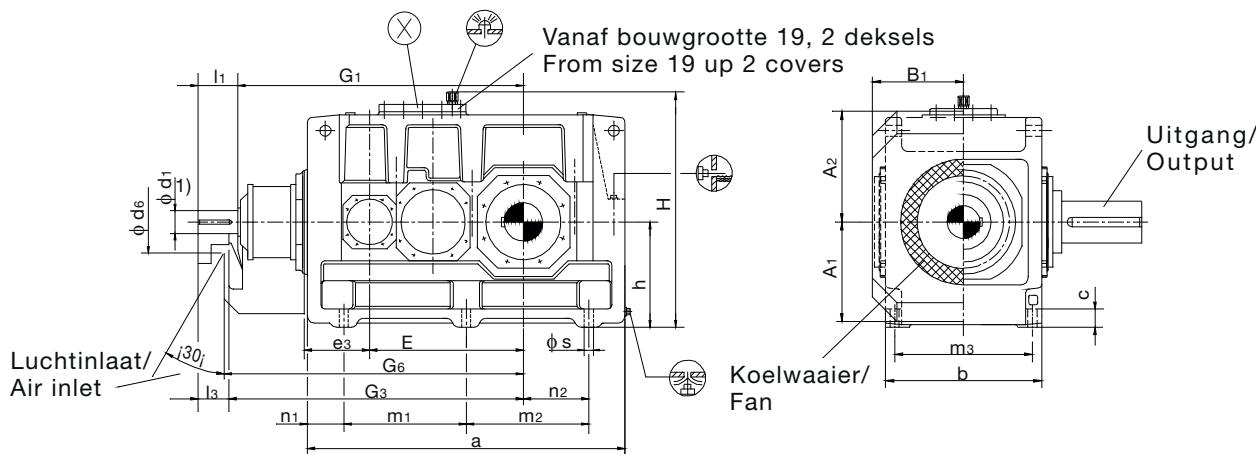
Kegeltandwielkasten

Drietaps Horizontaal
Type JRHB3.H / JRHB3.M
Bouwgrootte 13 - 22

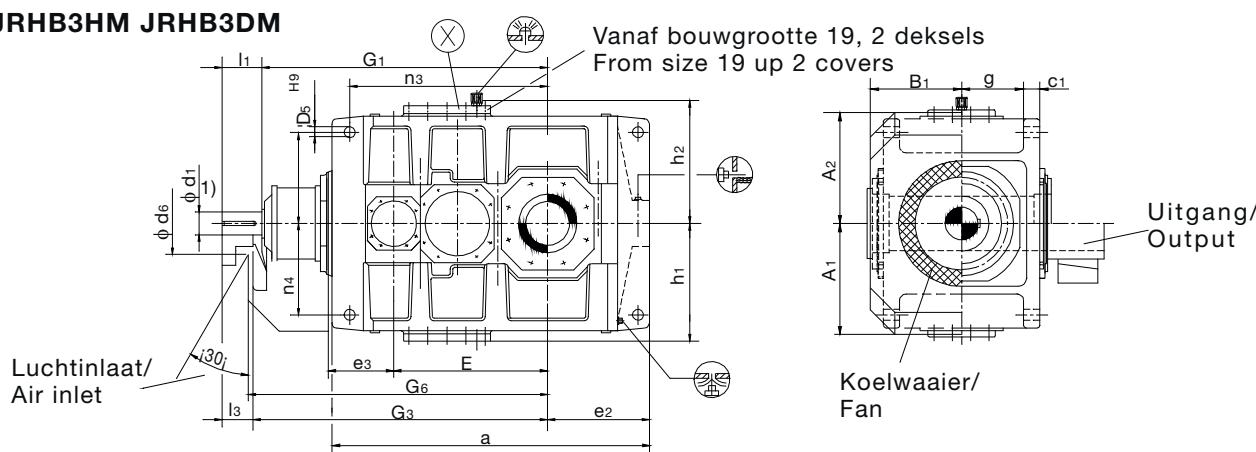
Bevel gear units

Three stage Horizontal
Type JRHB3.H / JRHB3.M
Sizes 13 - 22

JRHB3SH JRHB3HH JRHB3DH



JRHB3HM JRHB3DM

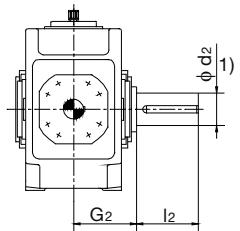


Uitgang / Output

Bouwvorm / Design

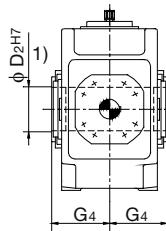
JRHB3SH

Massieve as /
Solid shaft



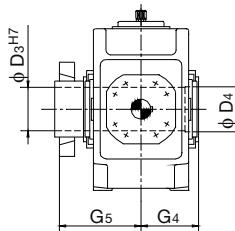
JRHB3HH,JRHB3HM

Holle as /
Hollow shaft

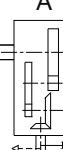


JRHB3DH,JRHB3DM

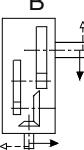
Holle as voor klembus /
Hollow shaft for shrink disk



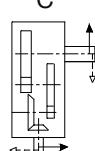
A



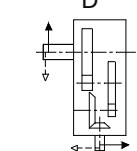
B



C



D



1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

Kegeltandwielkasten

Drietraps Horizontaal
Type JRHB3.H / JRHB3.M
Bouwgrootte 13 - 20

Bevel gear units

Three stage Horizontal
Type JRHB3.H / JRHB3.M
Sizes 13 - 20

Grootte Size	Afmetingen / Dimensions [mm]																G ₁	G ₃			
	Ingaande as / Input																				
	i _N =12.5-45			i _N =14-50			i _N =16-56			i _N =50-71			i _N =56-80			i _N =63-90					
	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	G ₁	G ₃	
13	80	165	130							60	140	105							1125	1160	
14							80	165	130								60	140	105	1195	1230
15	90	165	130							70	140	105								1367	1402
16				90	165	130							70	140	105					1413	1448
17	110	205	165							80	170	130								1560	1600
18				110	205	165							80	170	130					1620	1660
19	130	245	200							100	210	165								1832	1877
20				130	245	200							100	210	165					1892	1937
21	130	245	200							100	210	165								1902	1947
22				130	245	200							100	210	165					1957	2002

Grootte Size	Afmetingen / Dimensions [mm]													Tandwielkasten / Gear units	E	g				
	Tandwielkasten / Gear units																			
	a	A ₁	A ₂	b	B ₁	c	C ₁	d ₆	D ₅	e ₂	e ₃	E								
13	1290	425	475	550	325	60	61 ± 2	210	48	405	265	635	211.5							
14	1430	425	475	550	325	60	61 ± 2	210	48	475	265	705	211.5							
15	1550	485	520	625	365	70	72 ± 2	210	55	485	320	762	238							
16	1640	485	520	625	365	70	72 ± 2	210	55	530	320	808	238							
17	1740	535	570	690	395	80	81 ± 2	230	55	525	370	860	259							
18	1860	535	570	690	395	80	81 ± 2	230	55	585	370	920	259							
19	2010	610	630	790	448	90	91 ± 2	245	65	590	420	997	299							
20	2130	610	630	790	448	90	91 ± 2	245	65	650	420	1057	299							
21	2140	690	690	830	473	100	100 ± 2	280	75	655	450	1067	310							
22	2250	690	690	830	473	100	100 ± 2	280	75	710	450	1122	310							

Grootte Size	Afmetingen / Dimensions [mm]													Tandwielkasten / Gear units	s			
	Tandwielkasten / Gear units																	
	G ₆	h	h ₁	h ₂	H	m ₁	m ₂	m ₃	n ₁	n ₂	n ₃	n ₄						
13	1180	440	450	460	900	545	545	475	100	305	835	340	35					
14	1250	440	450	460	900	545	685	475	100	375	905	340	35					
15	1420	500	490	500	1000	655	655	535	120	365	1005	375	42					
16	1470	500	490	500	1000	655	745	535	120	410	1050	375	42					
17	1620	550	555	560	1110	735	735	600	135	390	1145	425	42					
18	1680	550	555	560	1110	735	855	600	135	450	1205	425	42					
19	1900	620	615	620	1240	850	850	690	155	435	1345	475	48					
20	1960	620	615	620	1240	850	970	690	155	495	1405	475	48					
21	1970	700	685	690	1390	900	900	720	170	485	1400	520	56					
22	2025	700	685	690	1390	900	1010	720	170	540	1455	520	56					

Grootte Size	Afmetingen / Dimensions [mm]										Olie / Oil		Gew. / Weight	
	Uigaande as / Output					JRHB3SH JRHB3HM					JRHB3DH JRHB3DM		JRHB3.H JRHB3.M	
	d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅	(L)	(L)	(kg)	(kg)	
13	200	335	350	190	335	190	195	335	480	130	110	2427	2305	
14	210	335	350	210	335	210	215	335	480	140	115	2805	2667	
15	230	380	410	230	380	230	235	380	550	210	160	3804	3610	
16	240	380	410	240	380	240	245	380	550	220	165	4034	3840	
17	250	415	410	250	415	250	260	415	600	290	230	5089	4855	
18	270	415	470	275	415	280	285	415	600	300	235	5604	5344	
19	290	465	470	-	-	285	295	465	670	380	360	6364	6171	
20	300	465	500	-	-	310	315	465	670	440	420	7089	6844	
21	320	490	500	-	-	330	335	490	715	370	420	9200	8600	
22	340	490	500	-	-	340	345	490	725	430	490	9900	9400	

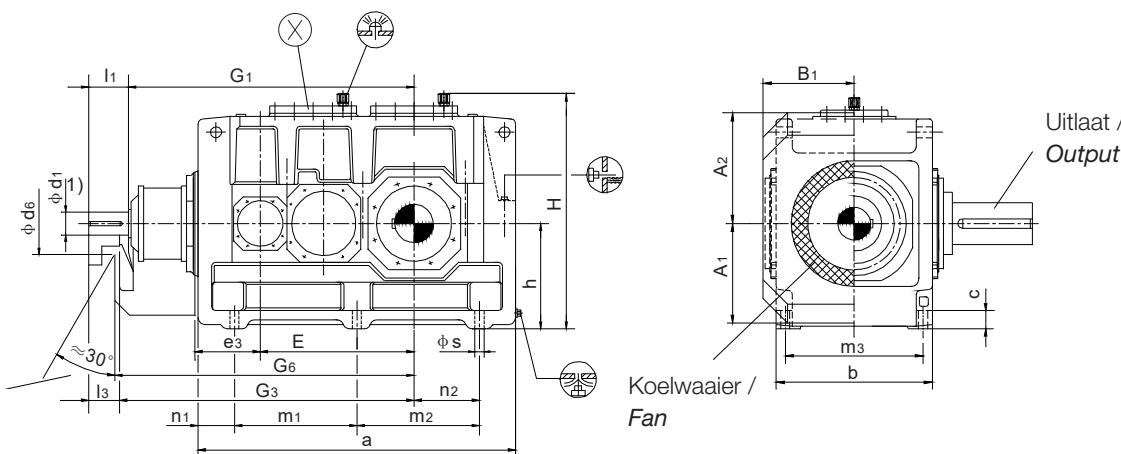
Kegeltandwielkasten

Drietaps Horizontaal
Type JRHB3.H / JRHB3.M
Bouwgrootte 23 - 28

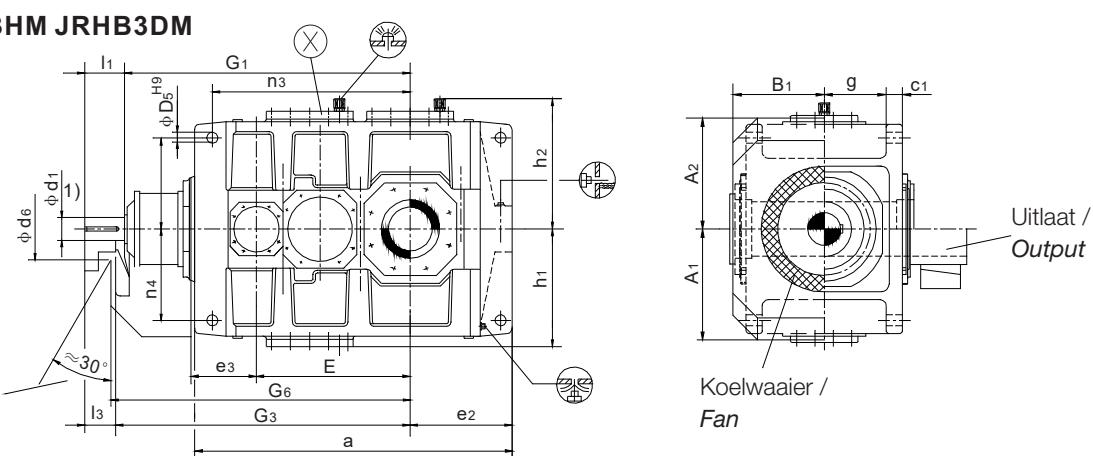
Bevel gear units

Three stage Horizontal
Type JRHB3.H / JRHB3.M
Sizes 23 - 28

JRHB3SH JRHB3HH JRHB3DH



JRHB3HM JRHB3DM



Uitlaat / Output

Bouwvorm / Design

JRHB3SH Massieve as / <i>Solid shaft</i>	JRHB3HH,JRHB3HM Holle as / <i>Hollow shaft</i>	JRHB3DH,JRHB3DM Holle as voor klembus/ <i>Hollow shaft for shrink disk</i>	
			A B C D

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

Kegeltandwielkasten

Drietraps Horizontaal
 Type JRHB3.H / JRHB3.M
 Bouwgrootte 23 - 28

Bevel gear units

Three stage Horizontal
 Type JRHB3.H / JRHB3.M
 Sizes 23 - 28

Grootte Size	Afmetingen / Dimensions [mm]																									
	Ingaande as / Input																									
	i _N =20-40			i _N =22.4-45			i _N =20-45			i _N =22.4-50			i _N =45-71			i _N =50-80			i _N =50-71			i _N =56-80			G ₁	G ₃
	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃					
23							150	245	200										110	210	165			2130	2175	
24										150	245	200										110	210	165	2195	2240
25	160	295	240										120	220	165										2375	2430
26				160	295	240										120	220	165							2465	2520
27	180	295	240										130	255	200										2625	2680
28				180	295	240										130	255	200							2720	2775

Grootte Size	Afmetingen / Dimensions [mm]														
	Tandwielkasten / Gear units														
	a	b	A ₁	A ₂	b	B ₁	c	c ₁	d ₆	D ₅	e ₂	e ₃	E	g	
23	2380	930	720	720	930	515	115	120±2	382	80	720	490	1185	342	
24	2510	930	720	720	930	515	115	120±2	382	80	795	490	1250	342	
25	2645	1045	790	790	1045	575	130	120±2	414	90	790	555	1325	400	
26	2825	1045	790	790	1045	575	130	120±2	414	90	880	555	1415	400	
27	2960	1170	870	870	1170	640	150	140±2	446	100	880	625	1485	440	
28	3150	1170	870	870	1170	640	150	140±2	446	100	975	625	1580	440	

Grootte Size	Afmetingen / Dimensions [mm]												
	Tandwielkasten / Gear units												
	G ₆	h	h ₁	h ₂	H	m ₁	m ₂	m ₃	n ₁	n ₂	n ₃	n ₄	s
23	2208	780	765	785	1565	1010	1010	810	180	550	1560	580	56
24	2273	780	765	785	1565	1010	1140	810	180	615	1625	580	56
25	2435	860	860	880	1740	1155	1090	910	200	590	1750	660	66
26	2525	860	860	880	1740	1155	1270	910	200	680	1840	660	66
27	2688	950	930	950	1900	1260	1260	1030	220	660	2000	720	74
28	2783	950	930	950	1900	1260	1450	1030	220	755	2095	720	74

Grootte Size	Afmetingen / Dimensions [mm]							Olie / Oil		Gew. / Weight			
	Uigaande as / Output							JRHB3.H					
	JRHB3SH			JRHB3DH		JRB3DM		(L)		(kg)	(kg)	(kg)	
	d ₂	G ₂	l ₂	D ₃	D ₄	G ₄	G ₅			560	12000	11400	
23	360	540	590	370	375	540	800	520		650	13400	12700	
24	380	540	590	390	395	540	820	600		830	16100	15300	
25	400	605	650	410	415	610	895	760		960	18000	17000	
26	420	605	650	430	435	610	925	880		1150	22700	21700	
27	440	680	690	460	465	680	1000	1050		1340	25700	2440	
28	460	680	750	470	475	680	1020	1220					

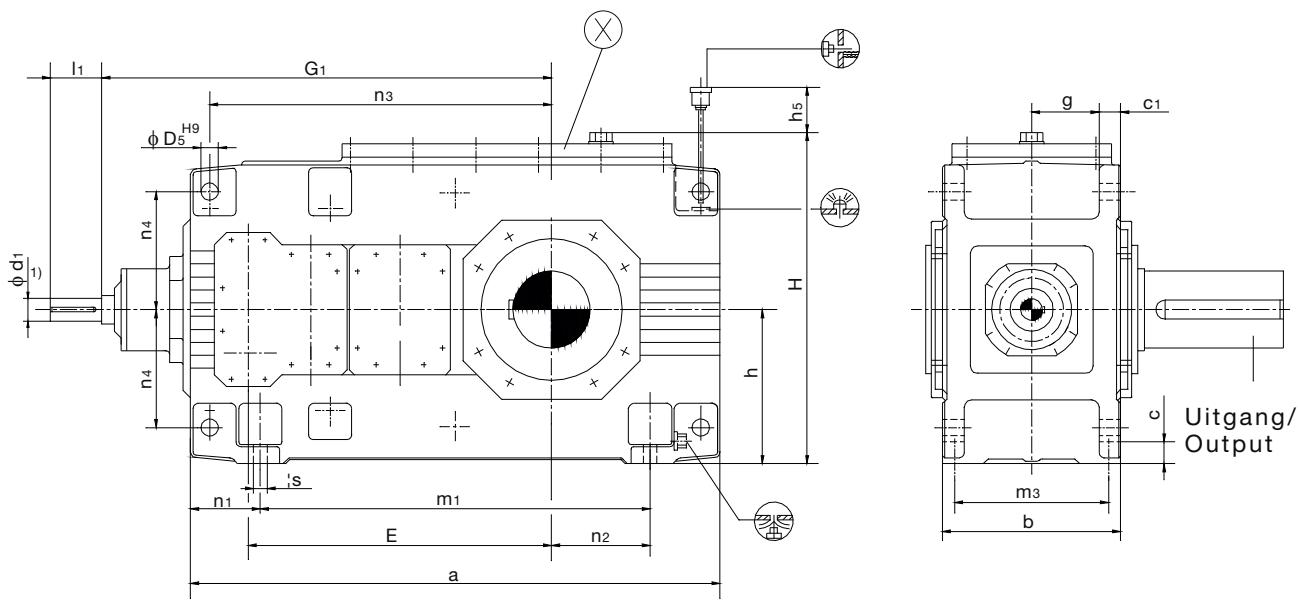
Kegeltandwielkasten

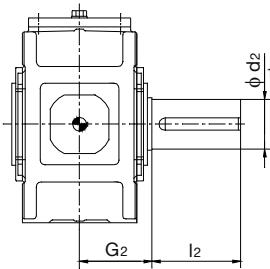
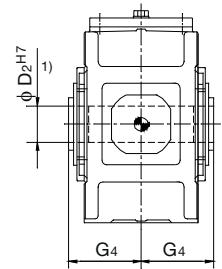
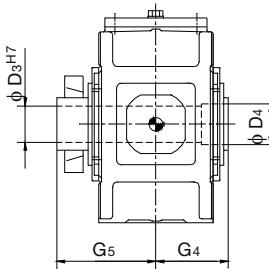
Viertraps Horizontaal
Type JRHB4.H
Bouwgrootte 5 - 12

Bevel gear units

Four stage Horizontal
Type JRHB4.H
Sizes 5 - 12

JRHB4SH JRHB4HH JRHB4DH



Uitgang / Output		Bouwvorm / Design
JRHB4SH Massieve as / Solid shaft	JRHB4HH Holle as / Hollow shaft	JRHB4DH Holle as voor klembus / Hollow shaft for shrink disk
 <p>G2 l2 ϕd_2^1</p>	 <p>G4 G4 ϕD_2^{H7}</p>	 <p>G5 G4 ϕD_3^{H7}</p>

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$
Voor spie en as specificaties zie blz 88, 89

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$
Keyway and shaft specifications see page 88, 89

Kegeltandwielkasten

 Viertraps Horizontaal
 Type JRHB4.H
 Bouwgrootte 5 - 12

Bevel gear units

 Four stage Horizontal
 Type JRHB4.H
 Sizes 5 - 12

Grootte Size	Afmetingen / Dimensions [mm]								G ₁	
	Ingaande as / Input									
	i _N =80-180		i _N =100-224		i _N =200-315		i _N =250-400			
d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁			
5	28	55			20	50			615	
6			28	55			20	50	650	
7	30	70			25	60			725	
8			30	70			25	60	770	
9	35	80			28	60			840	
10			35	80			28	60	890	
11	45	100			35	80			1010	
12			45	100			35	80	1080	

Grootte Size	Afmetingen / Dimensions [mm]																
	Tandwielkasten / Gear units																
	a	b	c	c ₁	D ₅	E	g	h	h ₅	H	m ₁	m ₃	n ₁	n ₂	n ₃	n ₄	s
5	690	255	28	30±1	24	405	97.5	230	100	482	480	220	105	100	455	180	19
6	770	255	28	30±1	24	440	97.5	230	100	482	560	220	105	145	490	180	19
7	845	300	35	36±1	28	495	114	280	140	572	605	260	120	130	560	215	24
8	950	300	35	36±1	28	540	114	280	130	582	710	260	120	190	605	215	24
9	1000	370	40	45±1.5	36	580	140	320	135	662	710	320	145	155	660	245	28
10	1100	370	40	45±1.5	36	630	140	320	135	662	810	320	145	205	710	245	28
11	1200	430	50	54±1.5	40	705	161	380	170	782	870	370	165	180	805	300	35
12	1355	430	50	54±1.5	40	775	161	380	160	790	1025	370	165	265	875	300	35

Grootte Size	Afmetingen / Dimensions [mm]								Olie / Oil (L)	Gew. / Weight (kg)		
	Ingaande as / Output											
	JRHB4SH			JRHB4HH		JRHB4DH						
d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅				
5	100	165	210	95	165	100	100	165	240	16	341	
6	110	165	210	105	165	110	110	165	240	18	392	
7	120	195	210	115	195	120	120	195	280	30	566	
8	130	195	250	125	195	130	130	195	285	33	668	
9	140	235	250	135	235	140	145	235	330	48	907	
10	160	235	300	150	235	150	155	235	350	50	1045	
11	170	270	300	165	270	165	170	270	400	80	1514	
12	180	270	300	180	270	180	185	270	405	90	1785	

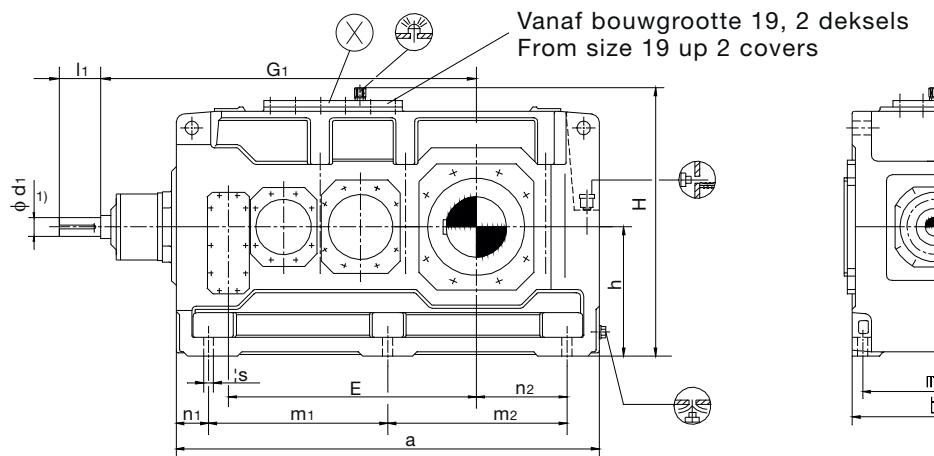
Kegeltandwielkasten

Viertraps Horizontaal
Type JRHB4.H / JRHB4.M
Bouwgrootte 13 - 22

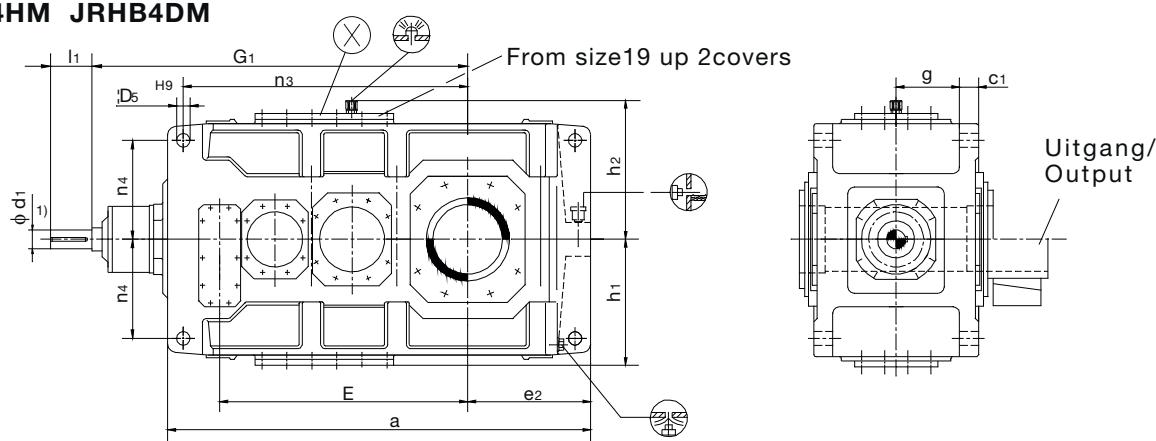
Bevel gear units

Four stage Horizontal
Type JRHB4.H / JRHB4.M
Sizes 13 - 22

JRHB4SH JRHB4HH JRHB4DH



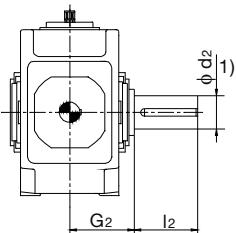
JRHB4HM JRHB4DM



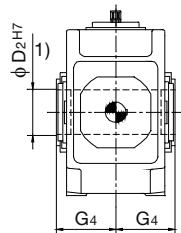
Uitgang / Output

Bouwvorm / Design

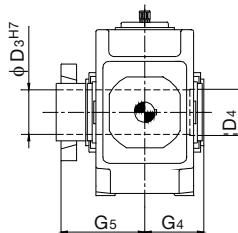
JRHB4SH
Massieve as /
Solid shaft



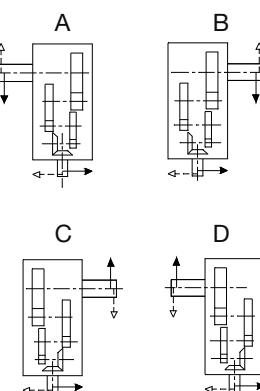
JRHB4HH,JRHB4HM
Holle as /
Hollow shaft



JRHB4DH,JRHB4DM
Holle as voor klembus /
Hollow shaft for shrink disk



Bouwvorm / Design



1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

Kegeltandwielkasten

 Viertraps Horizontaal
 Type JRHB4.H / JRHB4.M
 Bouwgrootte 13 - 20

Bevel gear units

 Four stage Horizontal
 Type JRHB4.H / JRHB4.M
 Sizes 13 - 20

Grootte Size	Afmetingen / Dimensions [mm]												
	Ingaande as / Input												
	in=80-180		in=90-200		in=100-224		in=200-315		in=224-355		in=250-400		G ₁
d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁		
13	55	110					40	100					1170
14				55	110					40	100		1240
15	70	135					50	110					1402
16			70	135					50	110			1448
17	70	135					50	110					1450
18			70	135					50	110			1510
19	80	165					60	140					1680
20			80	165					60	140			1740
21	90	165					70	140					1992
22			90	165					70	140			2047

Grootte Size	Afmetingen / Dimensions [mm]									
	Tandwielkasten / Gear units									
	a	b	c	c ₁	D ₅	e ₂	E	g	h	h ₁
13	1395	550	60	61±2	48	405	820	211.5	440	450
14	1535	550	60	61±2	48	475	890	211.5	440	450
15	1680	625	70	72±2	55	485	987	238	500	490
16	1770	625	70	72±2	55	530	1033	238	500	490
17	1770	690	80	81±2	55	525	1035	259	550	555
18	1890	690	80	81±2	55	585	1095	259	550	555
19	2030	790	90	91±2	65	590	1190	299	620	615
20	2150	790	90	91±2	65	650	1250	299	620	615
21	2340	830	100	100±2	75	655	1387	310	700	685
22	2450	830	100	100±2	75	710	1442	310	700	685

Grootte Size	Afmetingen / Dimensions [mm]									
	Tandwielkasten / Gear units									
	h ₂	H	m ₁	m ₂	m ₃	n ₁	n ₂	n ₃	n ₄	s
13	460	900	597.5	597.5	475	100	305	940	340	35
14	460	900	597.5	737.5	475	100	375	1010	340	35
15	500	1000	720	720	535	120	365	1135	375	42
16	500	1000	720	810	535	120	410	1180	375	42
17	560	1110	750	750	600	135	390	1175	425	42
18	560	1110	750	870	600	135	450	1235	425	42
19	620	1240	860	860	690	155	435	1365	475	48
20	620	1240	860	980	690	155	495	1425	475	48
21	690	1390	1000	1000	720	170	485	1600	520	56
22	690	1390	1000	1110	720	170	540	1655	520	56

Grootte Size	Afmetingen / Dimensions [mm]								Olie / Oil		Gew. / Weight		
	Uigaande as / Output												
	JRHB4SH			JRHB4HH JRHB4HM		JRHB4DH JRHB4DM			JRHB4.H	JRHB4.M	JRHB4.H	JRHB4.M	
d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅	(L)	(L)	(kg)	(kg)	
13	200	335	350	190	335	190	195	335	480	145	120	2442	2325
14	210	335	350	210	335	210	215	335	480	150	125	2789	2657
15	230	380	410	230	380	230	235	380	550	230	170	3702	3503
16	240	380	410	240	380	240	245	380	550	235	175	4064	3840
17	250	415	410	250	415	250	260	415	600	295	230	4788	4549
18	270	415	470	275	415	280	285	415	600	305	235	5304	5028
19	290	465	470	-	-	285	295	465	670	480	440	5865	5508
20	300	465	500	-	-	310	315	465	670	550	510	6579	6120
21	320	490	500	-	-	330	335	490	715	540	590	9200	8600
22	340	490	500	-	-	340	345	490	725	620	680	9900	9400

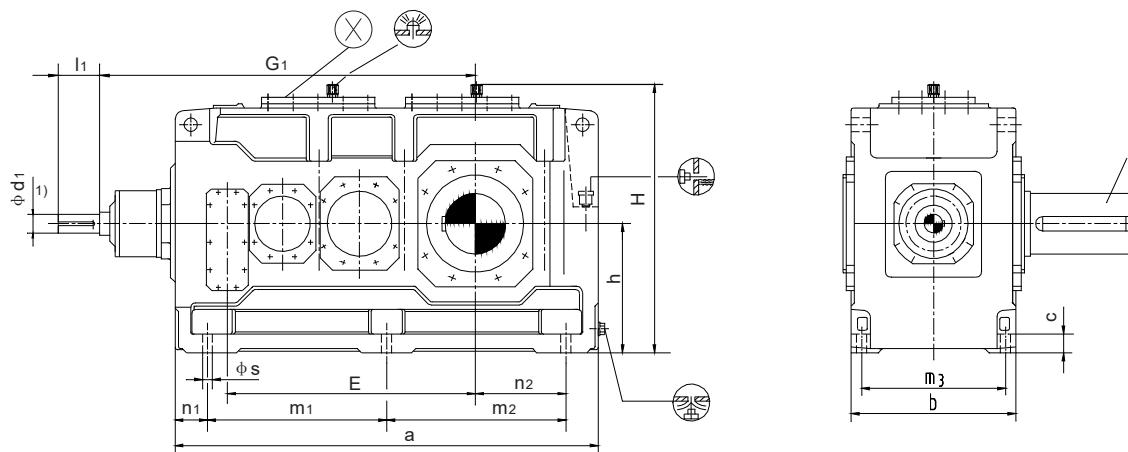
Kegeltandwielkasten

Viertraps Horizontaal
Type JRHB4.H / JRHB4.M
Bouwgrootte 23 - 28

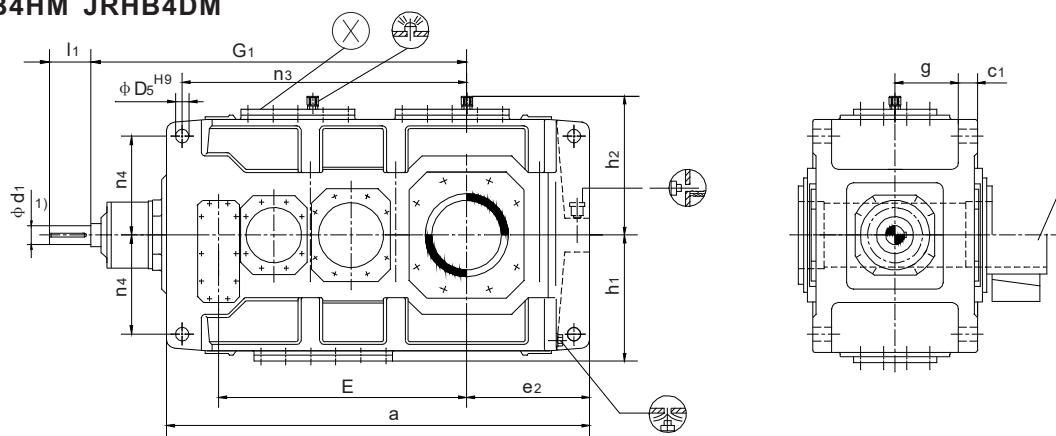
Bevel gear units

Four stage Horizontal
Type JRHB4.H / JRHB4.M
Sizes 23 - 28

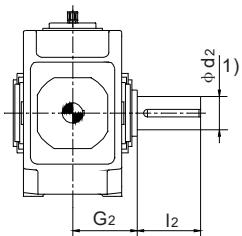
JRHB4SH JRHB4HH JRHB4DH



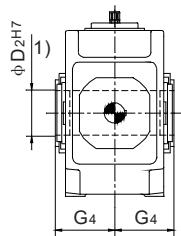
JRHB4HM JRHB4DM



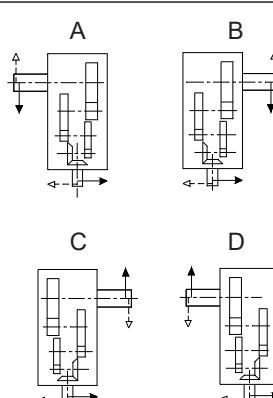
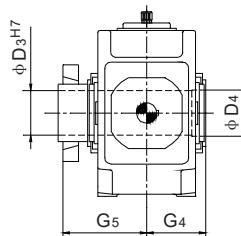
JRHB4SH



JRHB4HH,JRHB4HM



JRHB4DH,JRHB4DM



1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

Kegeltandwielkasten

 Viertraps Horizontaal
 Type JRHB4.H / JRHB4.M
 Bouwgrootte 23 - 28

Bevel gear units

 Four stage Horizontal
 Type JRHB4.H / JRHB4.M
 Sizes 23 - 28

Grootte Size	Afmetingen / Dimensions [mm]								
	Ingaande as / Input								
	i _N =80-160		i _N =90-180		i _N =180-315		i _N =200-355		G ₁
d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁		
23	90	165			70	140			2110
24			90	165			70	140	2175
25	110	205			80	170			2395
26			110	205			80	170	2485
27	130	245			100	210			2762
28			120	245			100	210	2857

Grootte Size	Afmetingen / Dimensions [mm]									
	Tandwielkasten / Gear units									
	a	b	c	c ₁	D ₅	e ₂	E	g	h	h ₁
23	2530	930	115	120±2	80	730	1505	342	780	765
24	2660	930	115	120±2	80	795	1570	342	780	765
25	2830	1045	130	120±2	90	790	1695	400	860	860
26	3010	1045	130	120±2	90	880	1785	400	860	860
27	3220	1170	150	145±2	100	880	1927	440	950	930
28	3410	1170	150	145±2	100	975	2022	440	950	930

Grootte Size	Afmetingen / Dimensions [mm]									
	Tandwielkasten / Gear units									
	h ₂	H	m ₁	m ₂	m ₃	n ₁	n ₂	n ₃	n ₄	s
23	785	1565	1085	1085	810	180	550	1725	580	56
24	785	1565	1085	1215	810	180	615	1790	580	56
25	880	1740	1215	1215	910	200	590	1965	660	66
26	880	1740	1215	1395	910	200	680	2055	660	66
27	950	1900	1390	1390	1030	220	660	2260	720	74
28	950	1900	1390	1580	1030	220	755	2355	720	74

Grootte Size	Afmetingen / Dimensions [mm]							Olie / Oil		Gew. / Weight	
	Uigaande as / Output							JRHB4.H	JRHB4.M		
	JRHB4SH		JRHB4DH		JRB4DM					JRHB4.H	JRHB4.M
	d ₂	G ₂	l ₂	D ₃	D ₄	G ₄	G ₅	(L)		(kg)	(kg)
23	360	540	590	370	375	540	800	710	790	12000	11400
24	380	540	590	390	395	540	820	810	910	13500	12800
25	400	605	650	410	415	610	895	1000	1110	16300	15500
26	420	605	650	430	435	610	925	1150	1280	18000	17100
27	440	680	690	460	465	680	1000	1430	1590	23000	22000
28	460	680	750	470	475	680	1020	1580	1750	26200	25000

Parallelle tandwielkasten

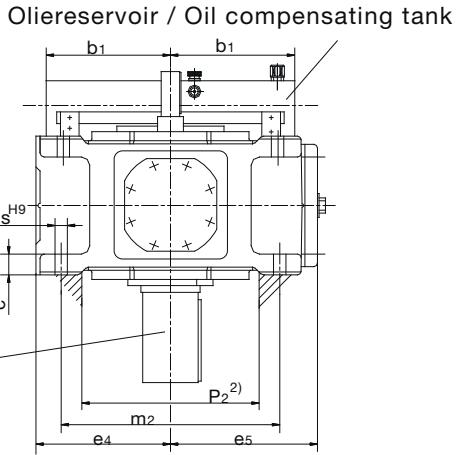
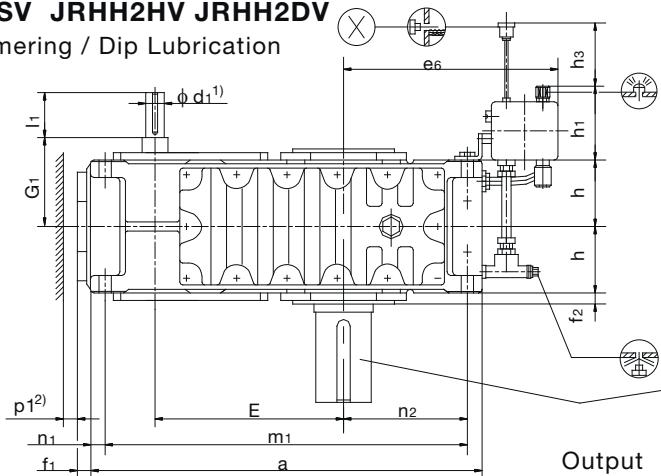
Tweetraps Verticaal
Type JRHH2.V
Bouwgrootte 4 - 12

Helical gear units

Two stage Vertical
Type JRHH2.V
Sizes 5 - 12

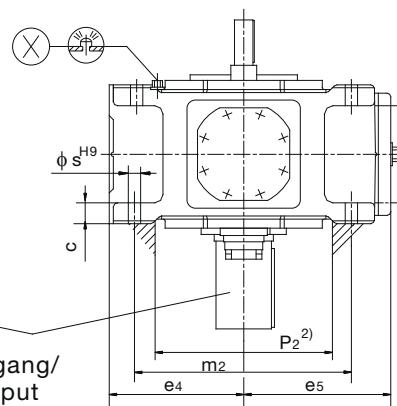
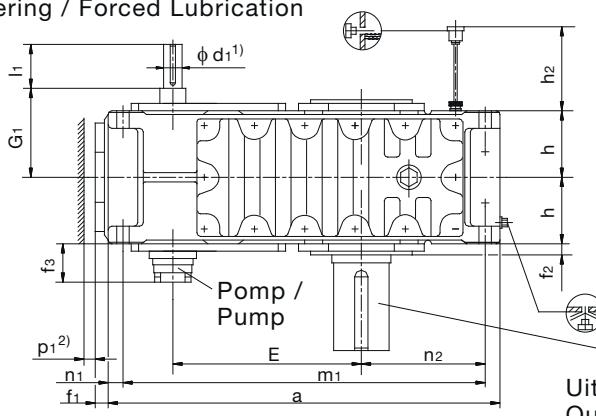
JRHH2SV JRHH2HV JRHH2DV

Dompelmering / Dip Lubrication



JRHH2SV JRHH2HV JRHH2DV

Geforceerde smering / Forced Lubrication

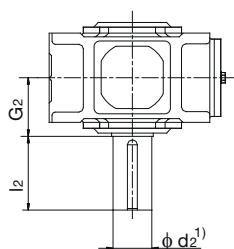


Uitgang / Output

Bouwvorm / Design

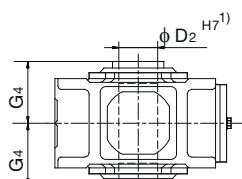
JRHH2SV

Massieve as /
Solid shaft



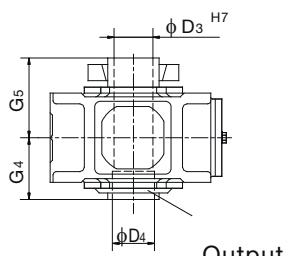
JRHH2HV

Holle as /
Hollow shaft



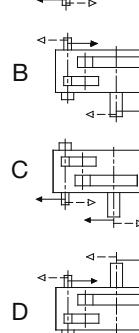
JRHH2DV

Holle as voor klembus /
Hollow shaft for shrink disk



A) D designs on request

Pomp / Pump A



1) $m6 \leq \varnothing 100; n6 \geq \varnothing 100$

Voor spie en as specificaties zie blz 88, 89

2) Specificaties voor pomp, leidingen en beschermkappen worden op aanvraag verstrekt

1) $m6 \leq \varnothing 100; n6 \geq \varnothing 100$

Keyway and shaft specifications see page 88, 89

2) Space for pump, pipes and cover.

For exact dimensions, please refer to us.

Parallelle tandwielkasten

Tweetraps Verticaal
Type JRHH2.V
Bouwgrootte 4 - 12

Helical gear units

Two stage Vertical
Type JRHH2.V
Sizes 4 - 12

Grootte Size	Afmetingen / Dimensions [mm]								G ₁	
	Ingaande as / Input									
	i _N =6.3-11.2		i _N =8-14		i _N =12.5-22.4		i _N =16-28			
4	45	100			32	80			170	
5	50	100	50	100	38	80	38	80	195	
6									195	
7	60	135	60	135	50	110	50	110	210	
8									210	
9	75	140	75	140	60	140	60	140	240	
10									240	
11	90	165	90	165	70	140	70	140	275	
12									275	

Grootte Size	Afmetingen / Dimensions [mm]									
	Tandwielkasten / Gear units									
	a	b ₁	c	e ₄	e ₅	e ₆	E	f ₁	f ₂	f ₃
4	565	150	30±1	200	215	320	270	28	22	-
5	640	240	30±1	230	252	385	315	38	28	150
6	720	240	30±1	230	252	425	350	38	28	150
7	785	240	36±1	280	292	425	385	42	30	145
8	890	240	36±1	280	302	485	430	42	32	145
9	925	330	45±1.5	320	342	560	450	42	32	135
10	1025	330	45±1.5	320	342	610	500	42	32	135
11	1105	330	54±1.5	380	402	595	545	48	35	145
12	1260	330	54±1.5	380	410	680	615	48	35	145

Grootte Size	Afmetingen / Dimensions [mm]										
	Tandwielkasten / Gear units										
	h	h ₁	h ₂	h ₃	m ₁	m ₂	n ₁	n ₂	P ₁	P ₂	s
4	107.5	165	-	180	505	300	30	160	35	220	24
5	127.5	205	190	240	580	360	30	175	35	270	24
6	127.5	205	190	240	660	360	30	220	35	270	24
7	150	205	165	250	715	430	35	215	35	330	28
8	150	205	165	250	820	430	35	275	35	330	28
9	185	275	205	330	845	490	40	260	40	370	36
10	185	275	205	330	945	490	40	310	40	370	36
11	215	275	240	340	1005	600	50	295	50	440	40
12	215	275	240	340	1160	600	50	380	50	440	40

Grootte Size	Afmetingen / Dimensions [mm]									Olie / Oil		Gew. / Weight (kg)				
	Uigaande as / Output									Druppel smering Dip lubrication (L)	Geforceerde smering Forced lubrication (L)					
	JRHH2SV			JRHH2HV		JRHH2DV										
	d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅							
4	80	140	170	80	140	85	85	140	205	23	-	190				
5	100	165	210	95	165	100	100	165	240	23	10	306				
6	110	165	210	105	165	110	110	165	240	27	11	362				
7	120	195	210	115	195	120	120	195	280	58	22	515				
8	130	195	250	125	195	130	130	195	285	62	25	601				
9	140	235	250	135	235	140	145	235	330	100	42	846				
10	160	235	300	150	235	150	155	235	350	110	46	979				
11	170	270	300	165	270	165	170	270	400	160	60	1361				
12	180	270	300	180	270	180	185	270	405	180	70	1647				

Parallelle tandwielkasten

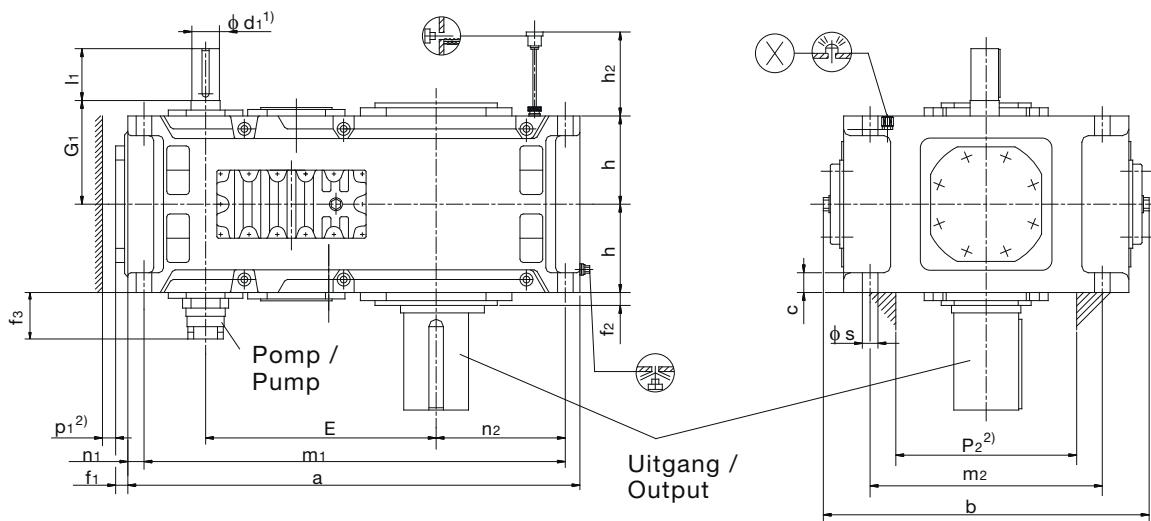
Tweetraps Verticaal
Type JRHH2.V
Bouwgroote 13 - 18

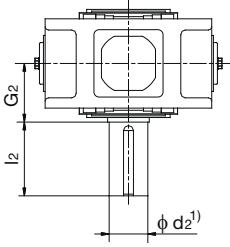
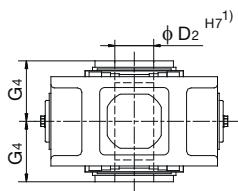
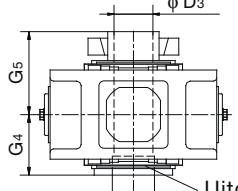
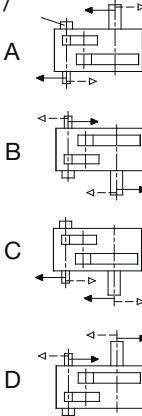
Helical gear units

Two stage Vertical
Type JRHH2.V
Sizes 13 - 18

JRHH2SV JRHH2HV JRHH2DV

Dompelsmering / Forced lubrication



Uitgang / Output			Bouwvorm / Design
JRHH2SV Massieve as / Solid shaft 	JRHH2HV Holle as / Hollow shaft 	JRHH2DV Holle as voor klembus / Hollow shaft for shrink disk  A,D tekening op aanvraag A,D designs on request	Pomp / Pump 

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

2) Specificaties voor pomp, leidingen en beschermkappen worden op aanvraag verstrekt

3) Grootte 13 en 15; alleen iN=6.3-18
Grootte 17; alleen iN=6.3-16

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

2) Space for pump, pipes and cover.

For exact dimensions, please refer to us.

3) Sizes 13 and 15; only iN=6.3-18

Sizes 17; only iN=6.3-16

Parallelle tandwielkasten

Tweetraps Verticaal
Type JRHH2.V
Bouwgrootte 13 - 18

Helical gear units

Two stage Vertical
Type JRHH2.V
Sizes 13 - 18

Grootte Size	Afmetingen / Dimensions [mm]												
	Ingaande as / Input												
	$i_N=6.3-11.2$		$i_N=7.1-12.5$		$i_N=8-14$		$i_N=12.5-20$		$i_N=14-22.4$		$i_N=16-25$		G ₁
	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	
13	100	205					85	170					330
14					100	205					85	170	330
15	120	210					100	210					365
16			120	210					100	210			365
17	125	245					110	210					420
18			125	245					110	210			420

Grootte Size	Afmetingen / Dimensions [mm]															
	Tandwielkasten / Gear units															
	a	b	c	E	f ₁	f ₂	f ₃	h	h ₂	m ₁	m ₂	n ₁	n ₂	p ₁	p ₂	s
13	1290	900	61 ± 2	635	53	35	130	272.5	300	1195	680	50	360	50	500	48
14	1430	900	61 ± 2	705	53	35	130	272.5	300	1335	680	50	430	50	500	48
15	1550	980	72 ± 2	762	63	42	130	310	340	1435	750	60	430	50	570	55
16	1640	980	72 ± 2	808	63	42	130	310	340	1525	750	60	475	50	570	55
17	1740	1110	81 ± 2	860	60	42	170	340	374	1610	850	70	465	70	630	55
18	1860	1110	81 ± 2	920	60	42	170	340	374	1730	850	70	525	70	630	55

Grootte Size	Afmetingen / Dimensions [mm]									Olie / Oil (L)	Gew. / Weight (kg)			
	Uitgaande as / Output													
	JRHH2SV			JRHH2HV			JRHH2DV							
	d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅					
13	200	335	350	190	335	190	195	335	480	80	1917			
14	210	335	350	210	335	210	215	335	480	90	2478			
15	230	380	410	230	380	230	235	380	550	140	3304			
16	240	380	410	240	380	240	245	380	550	150	3534			
17	250	415	410	250	415	250	260	415	600	175	4508			
18	270	415	470	275	415	280	285	415	600	185	4967			

Parallelle tandwielkasten

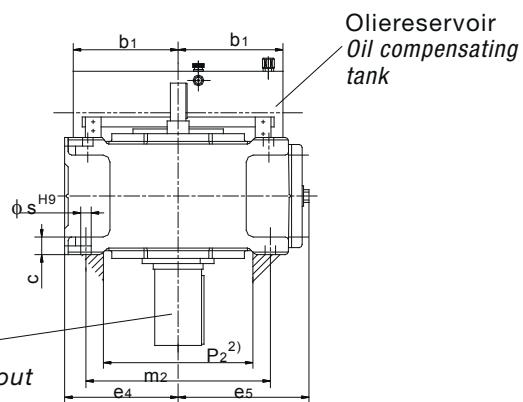
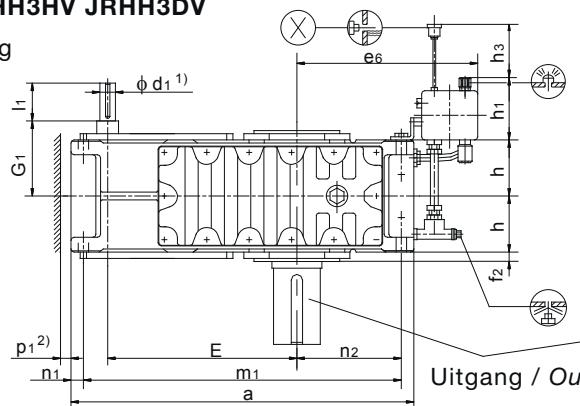
Drietraps Verticaal
Type JRHH3.V
Bouwgrootte 5 - 12

Helical gear units

Three stage Vertical
Type JRHH3.V
Sizes 5 - 12

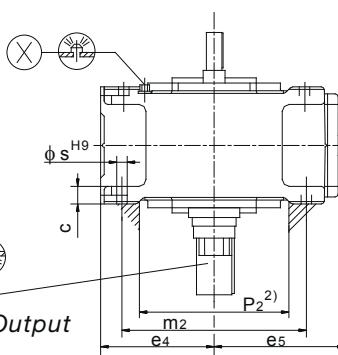
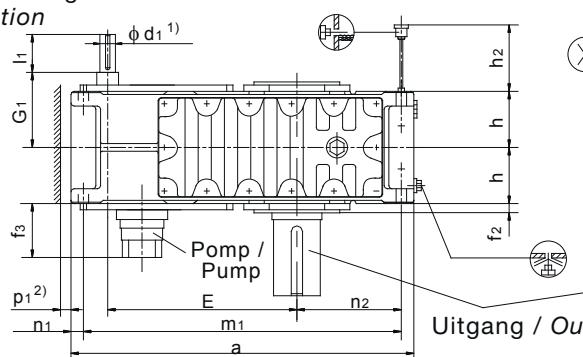
JRHH3SV JRHH3HV JRHH3DV

Dompelsmering
Dip lubrication



JRHH3SV JRHH3HV JRHH3DV

Geforceerde smering
Forced lubrication

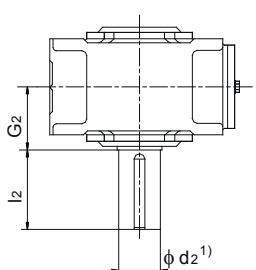


Uitgang / Output

Bouwvorm / Design

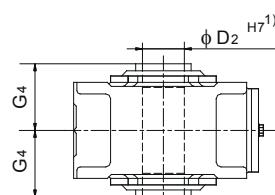
JRHH3SV

Massieve as /
Solid shaft



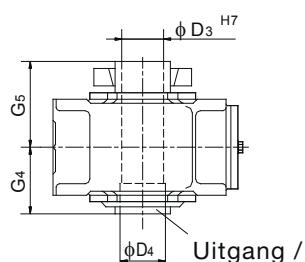
JRHH3HV

Holle as /
Hollow shaft



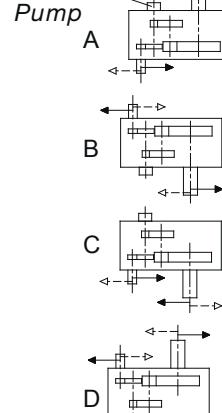
JRHH3DV

Holle as voor klembus /
Hollow shaft for shrink disk



A, D bouwvorm op aanvraag
A, D designs on request

Pomp / Pump



1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

2) Specificaties voor pomp, leidingen en beschermkappen worden op aanvraag verstrekt

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

2) Space for pump, pipes and cover.

For exact dimensions, please refer to us.

Parallelle tandwielkasten

 Drietraps Verticaal
 Type JRHH3.V
 Bouwgrootte 5 - 12

Helical gear units

 Three stage Vertical
 Type JRHH3.V
 Sizes 5 - 12

Grootte Size	Afmetingen / Dimensions [mm]											
	Ingaande as / Input											
	i _N =25-45		i _N =31.5-56		i _N =50-63		i _N =63-80		i _N =71-90		i _N =90-112	
	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁
5	40	70			30	50			24	40		
6			40	70			30	50			24	40
7	45	80			35	60			28	50		
8			45	80			35	60			28	50
9	60	125			45	100			32	80		
10			60	125			45	100			32	80
11	70	120			50	80			42	70		
12			70	120			50	80			42	70
												255

Grootte Size	Afmetingen / Dimensions [mm]									
	Tandwielkasten / Gear units									
	a	b ₁	c	e ₄	e ₅	e ₆	E	f ₂	f ₃	h
5	690	240	30±1	230	252	385	405	28	190	127.5
6	770	240	30±1	230	252	425	440	28	190	127.5
7	845	240	36±1	280	292	425	495	30	185	150
8	950	240	36±1	280	312	485	540	32	185	150
9	1000	330	45±1.5	320	342	560	580	32	170	185
10	1100	330	45±1.5	320	342	610	630	32	170	185
11	1200	330	54±1.5	380	402	595	705	35	170	215
12	1355	330	54±1.5	380	410	680	775	35	170	215

Grootte Size	Afmetingen / Dimensions [mm]									
	Tandwielkasten / Gear units									
	h ₁	h ₂	h ₃	m ₁	m ₂	n ₁	n ₂	p ₁	p ₂	s
5	205	190	240	630	360	30	175	35	270	24
6	205	190	240	710	360	30	220	35	270	24
7	205	165	250	775	430	35	215	35	330	28
8	205	165	250	880	430	35	275	35	330	28
9	275	205	330	920	490	40	260	40	370	36
10	275	205	330	1020	490	40	310	40	370	36
11	275	240	340	1100	600	50	295	50	440	40
12	275	240	340	1255	600	50	380	50	440	40

Grootte Size	Afmetingen / Dimensions [mm]									Olie / Oil		Gew. / Weight (kg)				
	Uitgaande as / Output									Druppel smering Dip lubrication (L)	Geforceerde smering Forced lubrication (L)					
	JRHH3SV			JRHH3HV			JRHB3DV									
	d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅							
5	100	165	210	95	165	100	100	165	240	35	13	326				
6	110	165	210	105	165	110	110	165	240	37	15	372				
7	120	195	210	115	195	120	120	195	280	60	25	550				
8	130	195	250	125	195	130	130	195	285	72	30	637				
9	140	235	250	135	235	140	145	235	330	100	40	892				
10	160	235	300	150	235	150	155	235	350	110	45	1040				
11	170	270	300	165	270	165	170	270	400	170	66	1428				
12	180	270	300	180	270	180	185	270	405	190	75	1708				

Parallelle tandwielkasten

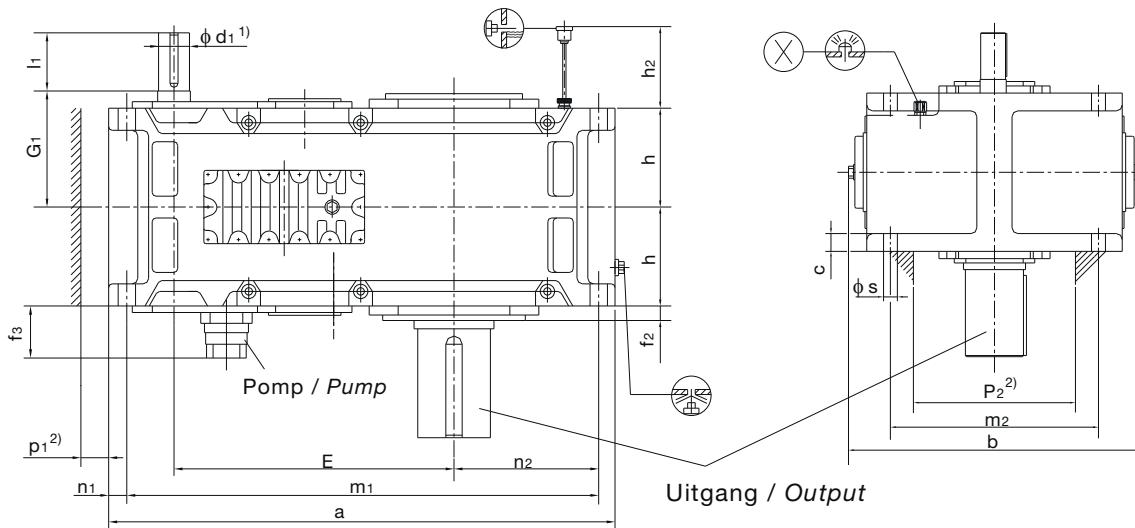
Drietraps Verticaal
Type JRHH3.V
Bouwgrootte 13 - 18

Helical gear units

Three stage Vertical
Type JRHH3.V
Sizes 13 - 18

JRHH3SV JRHH3HV JRHH3DV

Geforceerde smering
Forced lubrication



Uitgang / Output

JRHH3SV	JRHH3HV	JRHH3DV	
Massieve as / <i>Solid shaft</i>	Holle as / <i>Hollow shaft</i>	Holle as voor klembus / <i>Hollow shaft for shrink disk</i>	
		 A, D bouwvorm op aanvraag <i>A, D designs on request</i>	

1) $m6 \leq \text{Ø}100; n6 \geq \text{Ø}100$

Voor spie en as specificaties zie blz 88, 89

2) Specificaties voor pomp, leidingen en beschermkappen worden op aanvraag verstrekt

1) $m6 \leq \text{Ø}100; n6 \geq \text{Ø}100$

Keyway and shaft specifications see page 88, 89

2) Space for pump, pipes and cover.

For exact dimensions, please refer to us.

Parallelle tandwielkasten

Drietraps Verticaal
 Type JRHH3.V
 Bouwgrootte 13 - 18

Helical gear units

Three stage Vertical
 Type JRHH3.V
 Sizes 13 - 18

Grootte Size	Afmetingen / Dimensions [mm]																		
	Ingaande as / Input																		
	$i_N=22.4-45$		$i_N=25-50$		$i_N=28-56$		$i_N=50-63$		$i_N=56-71$		$i_N=63-80$		$i_N=71-90$		$i_N=80-100$		G_1		
	d_1	l_1	d_1	l_1	d_1	l_1	d_1	l_1	d_1	l_1	d_1	l_1	d_1	l_1	d_1	l_1			
13	85	160					60	135					50	110				310	
14					85	160					60	135					50	110	310
15	100	200					75	140					60	140				350	
16			100	200					75	140					60	140		350	
17	100	200					75	140					60	140				380	
18			100	200					75	140					60	140		380	

Grootte Size	Afmetingen / Dimensions [mm]															
	Tandwielkasten / Gear units															
	a	b	c	E	f ₂	f ₃	h	h ₂	m ₁	m ₂	n ₁	n ₂	p ₁	p ₂	s	
13	1395	900	61±2	820	35	170	272.5	300	1300	680	50	360	50	500	48	
14	1535	900	61±2	890	35	170	272.5	300	1440	680	50	430	50	500	48	
15	1680	980	72±2	987	42	170	310	340	1565	750	60	430	50	570	55	
16	1770	980	72±2	1033	42	170	310	340	1655	750	60	475	50	570	55	
17	1770	1110	81±2	1035	42	210	340	374	1640	850	70	465	70	630	55	
18	1890	1110	81±2	1095	42	210	340	374	1760	850	70	525	70	630	55	

Grootte Size	Afmetingen / Dimensions [mm]										Olie / Oil (L)	Gew. / Weight (kg)		
	Ugaande as / Output													
	JRHH3SV			JRHH3HV			JRHH3DV							
	d_2	G_2	l_2	D_2	G_4		D_3	D_4	G_4	G_5				
13	200	335	350	190	335		190	195	335	480	115	2198		
14	210	335	350	210	335		210	215	335	480	125	2539		
15	230	380	410	230	380		230	235	380	550	180	3325		
16	240	380	410	240	380		240	245	380	550	190	3697		
17	250	415	410	250	415		250	260	415	600	190	4335		
18	270	415	470	275	415		280	265	415	600	200	4834		

Parallelle tandwielkasten

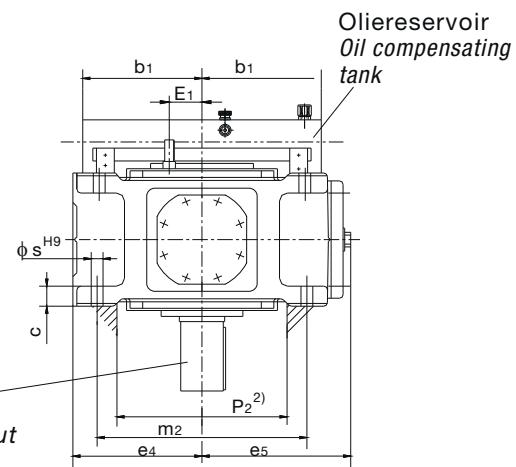
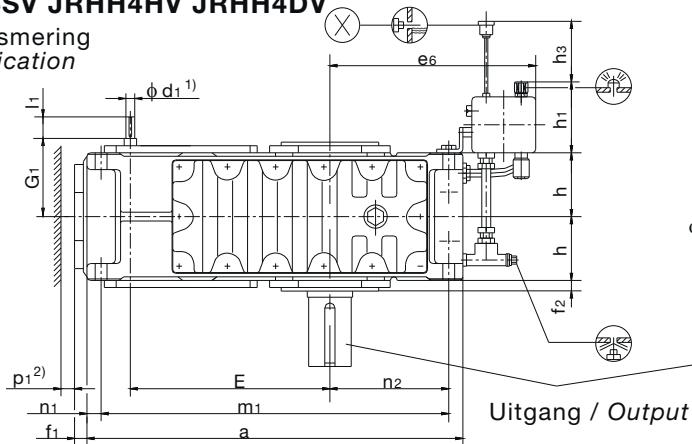
Viertraps Verticaal
Type JRHH4.V
Bouwgrootte 7 - 12

Helical gear units

Four stage Vertical
Type JRHH4.V
Sizes 7 - 12

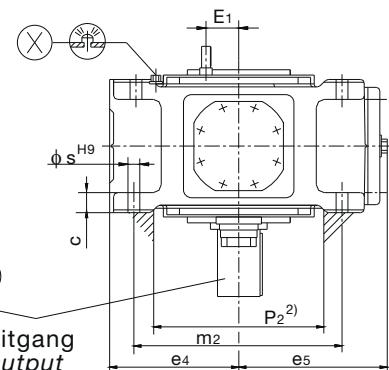
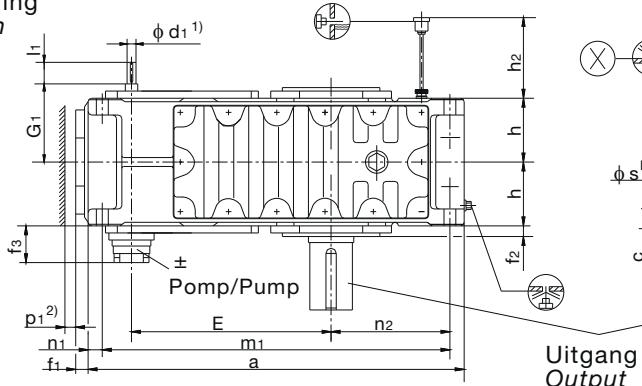
JRHH4SV JRHH4HV JRHH4DV

Druppelsmering
Dip lubrication



JRHH4SV JRHH4HV JRHH4DV

Geforceerde smering
Forced lubrication

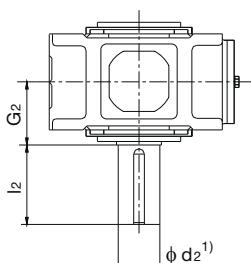


Uitgang / Output

Bouwvorm / Design

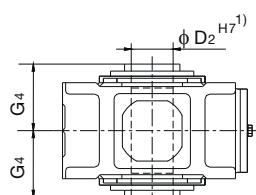
JRHH4SV

Massieve as /
Solid shaft



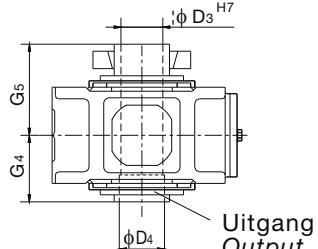
JRHH4HV

Holle as /
Hollow shaft



JRHH4DV

Holle as voor klembus /
Hollow shaft for shrink disk



A

B

Pomp/Pump

C

D

1) $m6 \leq \emptyset 100; n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

2) Specificaties voor pomp, leidingen en beschermkappen worden op aanvraag verstrekt

1) $m6 \leq \emptyset 100; n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

2) Space for pump, pipes and cover.

For exact dimensions, please refer to us.

Parallelle tandwielkasten

 Viertraps Verticaal
 Type JRHH4.V
 Bouwgrootte 7 - 12

Helical gear units

 Four stage Vertical
 Type JRHH4.V
 Sizes 7 - 12

Grootte Size	Afmetingen / Dimensions [mm]								
	Ingaande as / Input								
	i _N =100-180		i _N =125-224		i _N =200-355		i _N =250-450		G ₁
	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	
7	30	50			24	40			180
8			30	50			24	40	180
9	35	60			28	50			215
10			35	60			28	50	215
11	45	100			32	80			250
12			45	100			32	80	250

Grootte Size	Afmetingen / Dimensions [mm]										
	Tandwielkasten / Gear units										
	a	b ₁	c	e ₄	e ₅	e ₆	E	E ₁	f ₁	f ₂	f ₃
7	845	240	36±1	280	292	425	495	80	37	30	160
8	950	240	36±1	280	312	485	540	80	37	32	160
9	1000	330	45±1.5	320	342	560	580	90	43	32	170
10	1100	330	45±1.5	320	342	610	630	90	43	32	170
11	1200	330	54±1.5	380	402	595	705	110	47	35	170
12	1355	330	54±1.5	380	410	680	775	110	47	35	170

Grootte Size	Afmetingen / Dimensions [mm]										
	Tandwielkasten / Gear units										
	h	h ₁	h ₂	h ₃	m ₁	m ₂	n ₁	n ₂	p ₁	p ₂	s
7	150	205	165	250	775	430	35	215	35	330	28
8	150	205	165	250	880	430	35	275	35	330	28
9	185	275	205	330	920	490	40	260	40	370	36
10	185	275	205	330	1020	490	40	310	40	370	36
11	215	275	240	340	1100	600	50	295	50	440	40
12	215	275	240	340	1255	600	50	380	50	440	40

Grootte Size	Afmetingen / Dimensions [mm]									Olie / Oil		Gew. / Weight (kg)				
	Ungaande as / Output									Asafdichting / Shaft seal (L)	Labyrintafdichting / Labyrinth seal (L)					
	JRHH4SV			JRHH4HV			JRHH4DV									
	d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅							
7	120	195	210	115	195	120	120	195	280	50	20	561				
8	130	195	250	125	195	130	130	195	285	60	25	657				
9	140	235	250	135	235	140	145	235	330	95	38	892				
10	160	235	300	150	235	150	155	235	350	110	45	1030				
11	170	270	300	165	270	165	170	270	400	165	65	1509				
12	180	270	300	180	270	180	185	270	405	180	75	1759				

Parallelle tandwielkasten

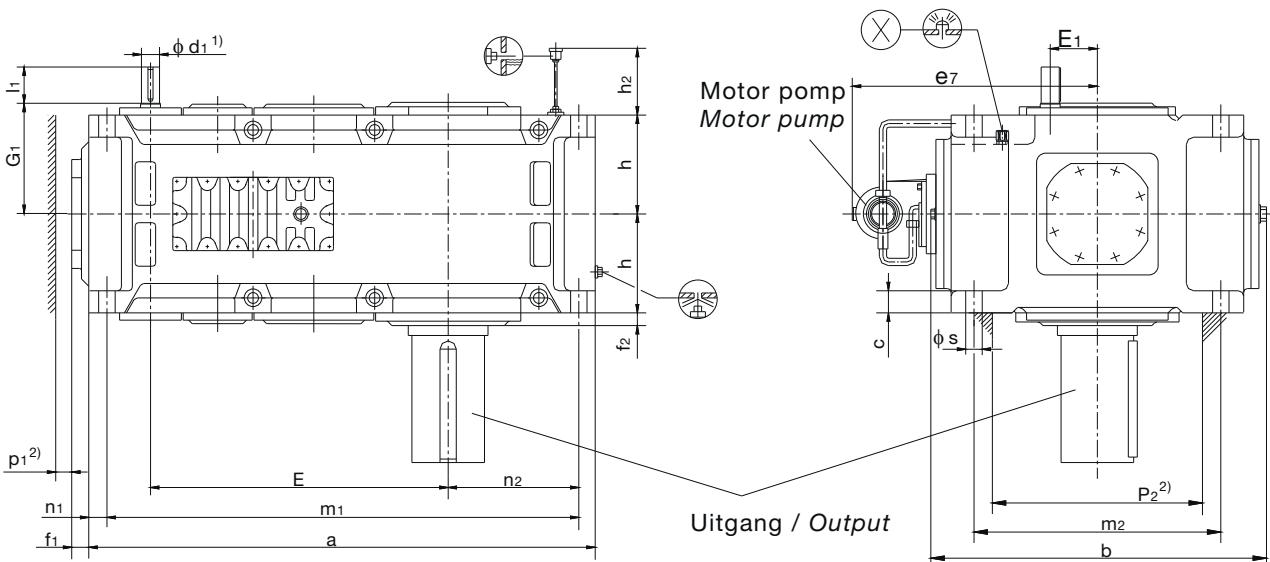
Viertraps Verticaal
Type JRHH4.V
Bouwgrootte 13 - 18

Helical gear units

Four stage Vertical
Type JRHH4.V
Sizes 13 - 18

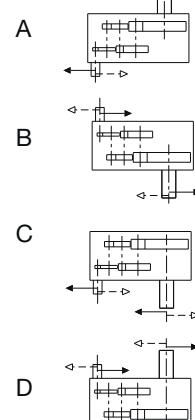
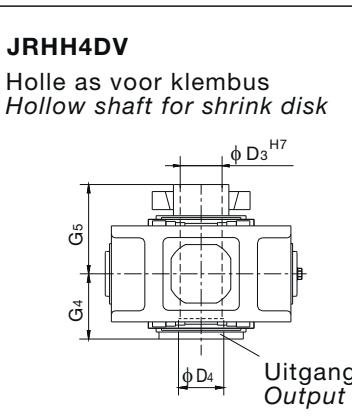
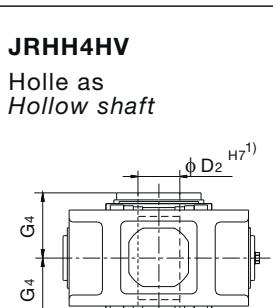
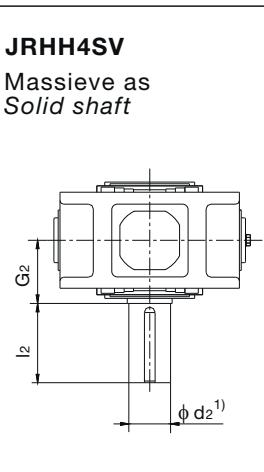
JRHH4SV JRHH4HV JRHH4DV

Geforceerde smering
Forced lubrication



Uitgang / Output

Bouwvorm / Design



1) $m6 \leq \text{Ø}100; n6 \geq \text{Ø}100$

Voor spie en as specificaties zie blz 88, 89

2) Specificaties voor pomp, leidingen en beschermkappen worden op aanvraag verstrekt

1) $m6 \leq \text{Ø}100; n6 \geq \text{Ø}100$

Keyway and shaft specifications see page 88, 89

2) Space for pump, pipes and cover.

For exact dimensions, please refer to us.

Parallelle tandwielkasten

Viertraps Verticaal
Type JRHH4.V
Bouwgrootte 13 - 18

Helical gear units

Four stage Vertical
Type JRHH4.V
Sizes 13 - 18

Grootte Size	Afmetingen / Dimensions [mm]												G ₁	
	Ingaande as / Input													
	i _N =100-180		i _N =112-200		i _N =125-224		i _N =200-355		i _N =224-400		i _N =250-450			
	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁		
13	50	100					38	80					305	
14					50	100					38	80	305	
15	60	135					50	110					345	
16			60	135					50	110			345	
17	60	105					50	80					380	
18			60	105					50	80			380	

Grootte Size	Afmetingen / Dimensions [mm]																
	Tandwielkasten / Gear units																
	a	b	c	e ₇	E	E ₁	f ₁	f ₂	h	h ₂	m ₁	m ₂	n ₁	n ₂	p ₁	p ₂	s
13	1395	900	61±2	695	820	130	47	35	272.5	300	1300	680	50	360	50	500	48
14	1535	900	61±2	695	890	130	47	35	272.5	300	1440	680	50	430	50	500	48
15	1680	980	72±2	735	987	160	56	42	310	340	1565	750	60	430	50	570	55
16	1770	980	72±2	735	1033	160	56	42	310	340	1655	750	60	475	50	570	55
17	1770	1110	81±2	795	1035	160	53	42	340	374	1640	850	70	465	70	630	55
18	1890	1110	81±2	795	1095	160	53	42	340	374	1760	850	70	525	70	630	55

Grootte Size	Afmetingen / Dimensions [mm]										Olie / Oil (L)	Gew. / Weight (kg)			
	Ingaande as / Output														
	JRHH4SV			JRHH4HV			JRHH4DV								
	d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅						
13	200	335	350	190	335	190	195	335	480		95	2315			
14	210	335	350	210	335	210	215	335	480		105	2652			
15	230	380	410	230	380	235	235	380	550		150	3508			
16	240	380	410	240	380	240	245	380	550		160	3814			
17	250	415	410	250	415	250	260	415	600		190	4533			
18	270	415	470	275	415	280	285	415	600		200	5013			

Kegeltandwielkasten

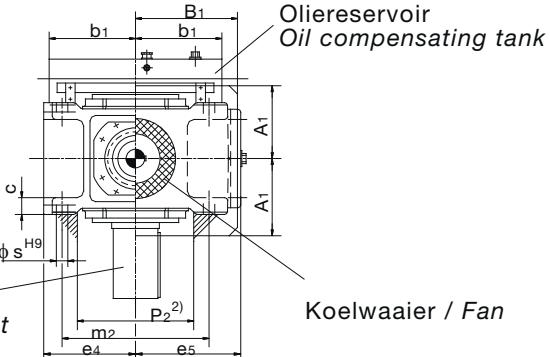
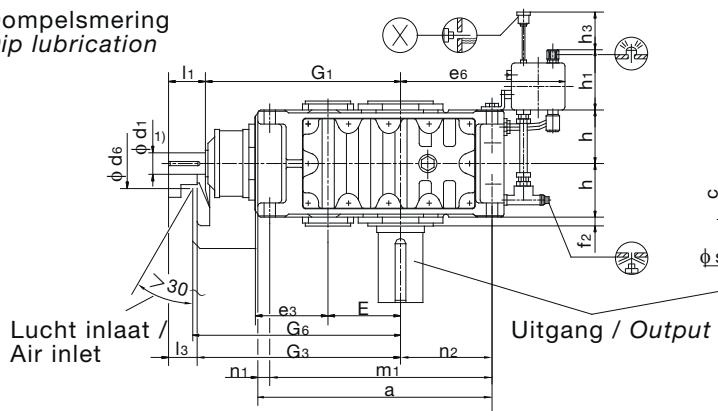
Tweetraps Verticaal
Type JRHB2.V
Bouwgrootte 4 - 12

Bevel gear units

Two stage Vertical
Type JRHB2.V
Sizes 4 - 12

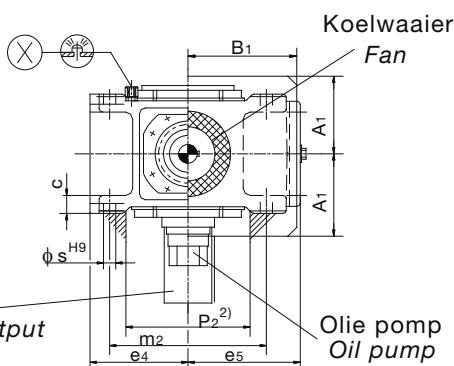
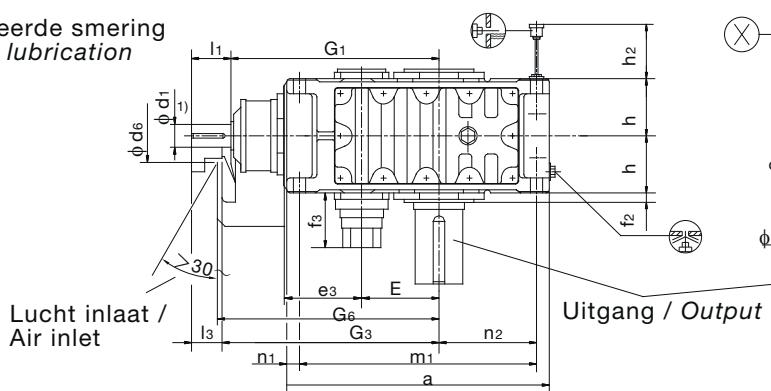
JRHB2SV JRHB2HV JRHB2DV

Dompelsmering
Dip lubrication



JRHB2SV JRHB2HV JRHB2DV

Geforceerde smering
Forced lubrication

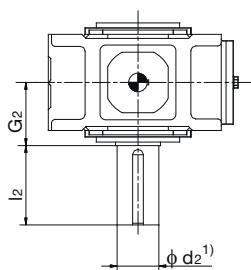


Uitgang / Output

Bouwvorm / Design

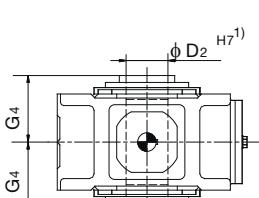
JRHB2SV

Massieve as
Solid shaft



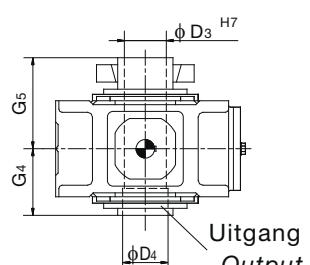
JRHB2HV

Holle as
Hollow shaft

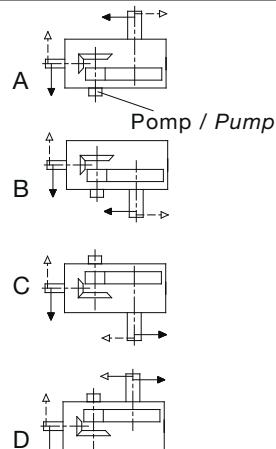


JRHB2DV

Holle as voor klembus
Hollow shaft for shrink disk



A, D bouwvorm op aanvraag /
A, D designs on request



1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

2) Specificaties voor pomp, leidingen en beschermkappen worden op aanvraag verstrekt

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

2) Space for pump, pipes and cover.

For exact dimensions, please refer to us.

Kegeltandwielkasten

Tweetraps Verticaal
Type JRHB2.V
Bouwgrootte 4 - 12

Bevel gear units

Two stage Vertical
Type JRHB2.V
Sizes 4 - 12

Grootte Size	Afmetingen / Dimensions [mm]							
	Ingaande as / Input							
	i _N =5-11.2			i _N =6.3-14			G ₁	G ₂
	d ₁	I ₁	I ₃	d ₁	I ₁	I ₃		
4	45	110	80				465	485
5	55	110	80	55	110	80	535	565
6							570	600
7	70	135	105	70	135	105	640	670
8							685	715
9	80	165	130	80	165	130	755	790
10							805	840
11	90	165	130	90	165	130	925	960
12							995	1030

Grootte Size	Afmetingen / Dimensions [mm]											
	Tandwielkasten / Gear units											
	a	A ₁	b ₁	B ₁	c	d ₆	e ₃	e ₄	e ₅	e ₆	E	f ₂
4	505	188	150	200	30±1	150	100	200	215	320	160	26
5	565	215	240	235	30±1	160	185	230	252	385	185	30
6	645	215	240	235	30±1	160	185	230	252	425	220	30
7	690	250	240	285	36±1	210	225	280	302	425	225	32
8	795	250	240	285	36±1	210	225	280	302	485	270	32
9	820	270	330	325	48±1.5	195	265	320	342	560	265	45
10	920	270	330	325	48±1.5	195	265	320	342	610	315	45
11	975	328	330	385	54±1.5	210	320	380	410	595	320	47
12	1130	328	330	385	54±1.5	210	320	380	410	680	390	47

Grootte Size	Afmetingen / Dimensions [mm]											
	Tandwielkasten / Gear units											
	f ₃	G ₆	h	h ₁	h ₂	h ₃	m ₂	n ₁	n ₂	p ₂	s	
4	-	495	135	165	-	180	445	300	30	160	200	24
5	190	575	160	205	245	240	505	360	30	175	270	24
6	190	610	160	205	245	240	585	360	30	220	270	24
7	200	685	190	205	220	250	620	430	35	215	330	28
8	200	730	190	205	220	250	725	430	35	275	330	28
9	200	805	220	275	250	330	740	490	40	260	370	36
10	200	855	220	275	250	330	840	490	40	310	370	36
11	200	980	265	275	300	340	875	600	50	295	440	40
12	200	1050	265	275	300	340	1030	600	50	380	440	40

Grootte Size	Afmetingen / Dimensions [mm]								Olie / Oil		Gew. / Weight (kg)			
	Uitgaande as / Output								Druppel smering Dip lubrication (L)	Geforceerde smering Forced lubrication (L)				
	JRHB2SV		JRHB2HV		JRHB2DV									
	d ₂	G ₂	I ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅					
4	80	170	170	80	170	85	85	170	235	23.5	-	235		
5	100	200	210	95	200	100	100	200	275	41	20	367		
6	110	200	210	105	200	110	110	200	275	50	23	418		
7	120	235	210	115	235	120	120	235	320	75	35	627		
8	130	235	250	125	235	130	130	235	325	90	38	714		
9	140	270	250	135	270	140	145	270	365	115	53	1020		
10	160	270	300	150	270	150	155	270	385	135	60	1178		
11	170	320	300	165	320	165	170	320	450	190	86	1672		
12	180	320	300	180	320	180	185	320	455	215	95	1948		

Kegeltandwielkasten

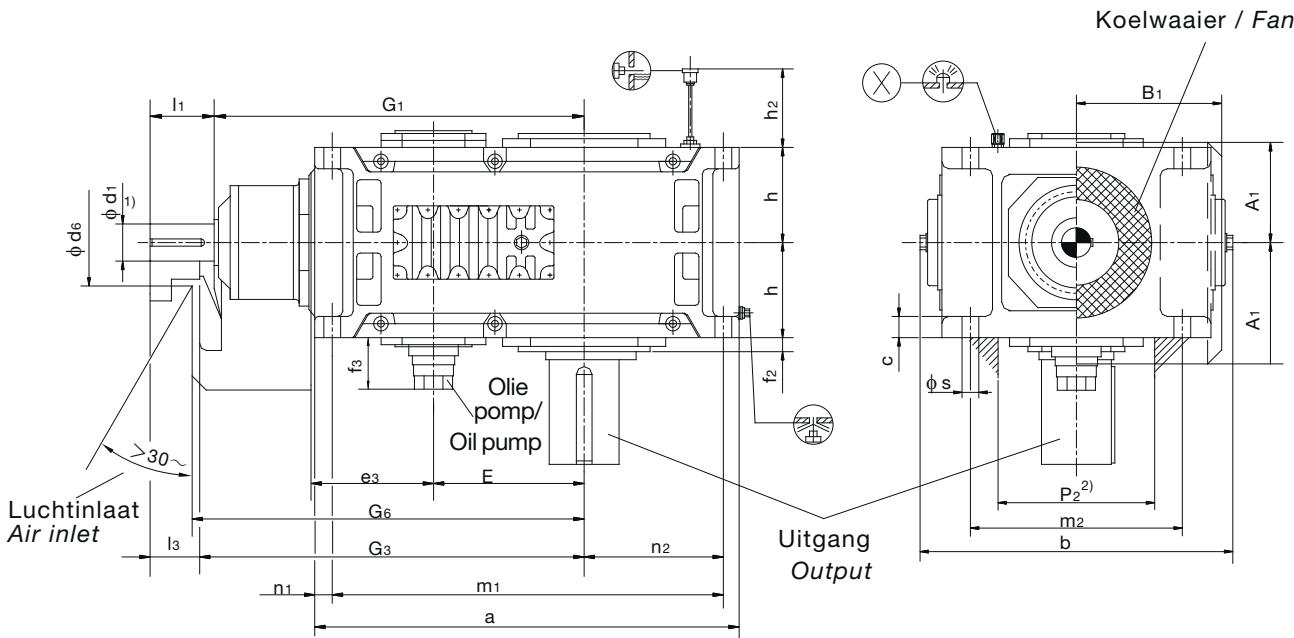
Tweetraps Verticaal
Type JRHB2.V
Bouwgroote 13 - 18

Bevel gear units

Two stage Vertical
Type JRHB2.V
Sizes 13 - 18

JRHB2SV JRHB2HV JRHB2DV

Geforceerde smering
Forced lubrication



Uitgang / Output			Bouwvorm / Design
JRHB2SV Massieve as <i>Solid shaft</i>	JRHB2HV Holle as <i>Hollow shaft</i>	JRHB2DV Holle as voor klembus <i>Hollow shaft for shrink disk</i>	
			A, D bouwvorm op aanvraag / A, D designs on request
1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$ Voor spie en as specificaties zie blz 88, 89	1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$ Keyway and shaft specifications see page 88, 89	2) Specificaties voor pomp, leidingen en beschermkappen worden op aanvraag verstrekt	2) Space for pump, pipes and cover. For exact dimensions, please refer to us.

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

2) Specificaties voor pomp, leidingen en beschermkappen worden op aanvraag verstrekt

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

2) Space for pump, pipes and cover.

For exact dimensions, please refer to us.

Kegeltandwielkasten

Tweetraps Verticaal
Type JRHB2.V
Bouwgrootte 13 - 18

Bevel gear units

Two stage Vertical
Type JRHB2.V
Sizes 13 - 18

Grootte Size	Afmetingen / Dimensions [mm]														G1	G3		
	Ingaande as / Input																	
	$i_N=5-11.2$			$i_N=5.6-11.2$			$i_N=5.6-12.5$			$i_N=6.3-14$			$i_N=7.1-12.5$					
d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	1070	1110		
13	110	205	165													1140	1180	
14										110	205	165				1277	1322	
15	130	245	200						130	245	200					1323	1368	
16																1435	1480	
17				150	245	200										150	245	200
18																1495	1540	

Grootte Size	Afmetingen / Dimensions [mm]									
	Tandwielkasten / Gear units									
	a	A ₁	b	B ₁	c	d ₆	e ₃	E	f ₂	f ₃
13	1130	375	900	450	61±2	245	380	370	38	200
14	1270	375	900	450	61±2	245	380	440	45	200
15	1350	435	980	495	72±2	280	450	442	75	200
16	1440	435	980	495	72±2	280	450	488	75	200
17	1490	505	1110	555	81±2	380	510	490	98	200
18	1610	505	1110	555	81±2	380	510	550	98	200

Grootte Size	Afmetingen / Dimensions [mm]									Olie / Oil (L)	Gew. / Weight (kg)		
	Tandwielkasten / Gear units												
	G ₆	h	h ₂	m ₁	m ₂	n ₁	n ₂	p ₂	s				
13	1130	325	350	1035	680	50	360	500	48				
14	1200	325	350	1175	680	50	430	500	48				
15	1340	380	430	1235	750	60	430	570	55				
16	1385	380	430	1325	750	60	475	570	55				
17	1500	437.5	480	1360	840	70	465	630	65				
18	1560	437.5	480	1480	840	70	525	630	65				

Grootte Size	Afmetingen / Dimensions [mm]									Olie / Oil (L)	Gew. / Weight (kg)		
	Uitgaande as / Output												
	JRHB2SV			JRHB2HV		JRHB2DV							
d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅					
13	200	390	350	-	-	-	-	-	100	2397			
14	210	390	350	210	390	210	215	390	535	110	2779		
15	230	460	410	-	-	-	-	-	-	145	3870		
16	240	460	410	240	450	240	245	450	620	160	4243		
17	250	540	410	-	-	-	-	-	-	210	5426		
18	270	540	470	275	510	280	285	510	700	220	5977		

Kegeltandwielkasten

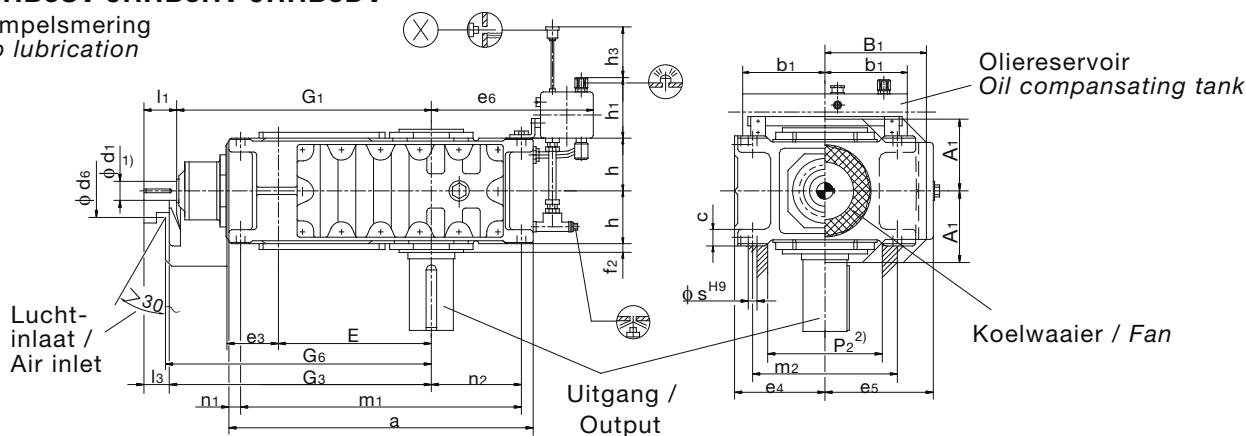
Drietraps Verticaal
Type JRHB3.V
Bouwgrootte 4 - 12

Bevel gear units

Three stage Vertical
Type JRHB3.V
Sizes 4 - 12

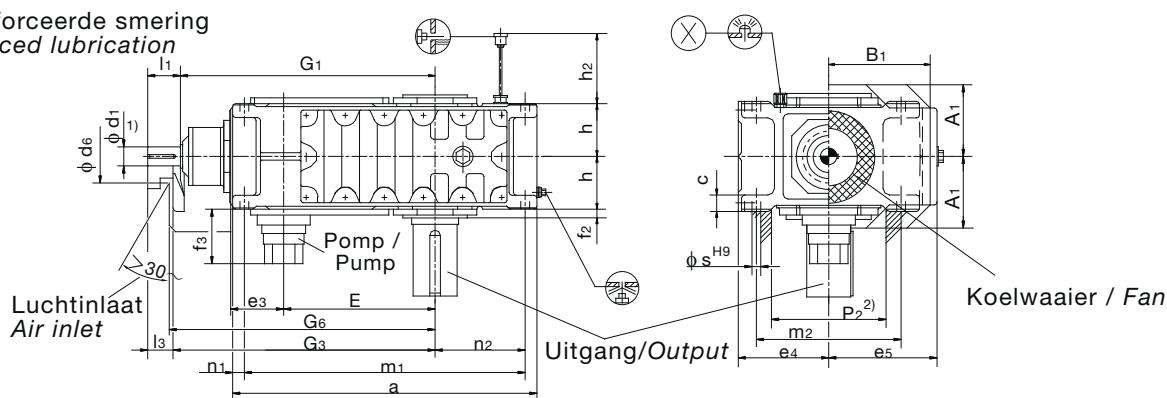
JRHB3SV JRHB3HV JRHB3DV

Dompelsmering
Dip lubrication



JRHB3SV JRHB3HV JRHB3DV

Geforceerde smering
Forced lubrication

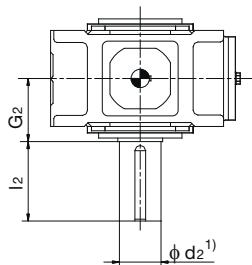


Uitgang / Output

Bouwvorm / Design

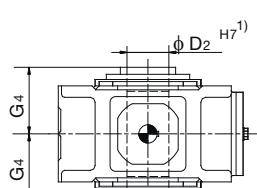
JRHB3SV

Massieve as
Solid shaft



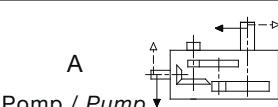
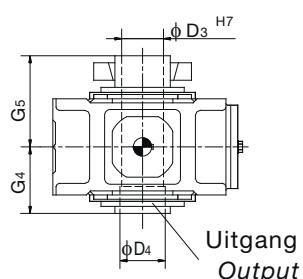
JRHB3HV

Holle as
Hollow shaft



JRHB3DV

Holle as voor klembus
Hollow shaft for shrink disk



A, D bouwvorm op aanvraag /
A, D designs on request

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

2) Specificaties voor pomp, leidingen en beschermkappen worden op aanvraag verstrekt

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

2) Space for pump, pipes and cover.

For exact dimensions, please refer to us.

Kegeltandwielkasten

Drietraps Verticaal
Type JRHB3.V
Bouwgrootte 4 - 12

Bevel gear units

Three stage Vertical
Type JRHB3.V
Sizes 4 - 12

Grootte Size	Afmetingen / Dimensions [mm]													
	Ingaande as / Input													
	i _N =12.5-45			i _N =16-56			i _N =50-71			i _N =63-90			G ₁	G ₃
	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃		
4	30	70	80				25	60	40				500	500
5	35	80	60				28	60	40	28	60	40	575	595
6				35	80	60							610	630
7	45	100	80				35	80	60	35	80	60	690	710
8				45	100	80							735	755
9	55	110	80				40	100	70	40	100	70	800	830
10				55	110	80							850	880
11	70	135	105				50	110	80	50	110	80	960	990
12				70	135	105							1030	1060

Grootte Size	Afmetingen / Dimensions [mm]											
	Tandwielkasten / Gear units											
	a	A ₁	b ₁	B ₁	c	d ₆	e ₃	e ₄	e ₅	e ₆	E	f ₂
4	565	143	150	200	30±1	110	110	200	215	320	270	22
5	640	168	240	235	30±1	130	130	230	252	385	315	28
6	720	168	240	235	30±1	130	130	230	252	425	350	28
7	785	193	240	275	36±1	165	160	280	292	425	385	30
8	890	193	240	275	36±1	165	160	280	302	485	430	32
9	925	231	330	325	45±1.5	175	185	320	342	560	450	32
10	1025	231	330	325	45±1.5	175	185	320	342	610	500	32
11	1105	263	330	385	54±1.5	190	225	380	402	595	545	35
12	1260	263	330	385	54±1.5	190	225	380	410	680	615	35

Grootte Size	Afmetingen / Dimensions [mm]											
	Tandwielkasten / Gear units											
	f ₃	G ₆	h	h ₁	h ₂	h ₃	m ₁	m ₂	n ₁	n ₂	p ₂	s
4	-	530	107.5	165	-	180	505	300	30	160	220	24
5	190	605	127.5	205	180	240	580	360	30	175	270	24
6	190	640	127.5	205	180	240	660	360	30	220	270	24
7	190	720	150	205	165	250	715	430	35	215	330	28
8	190	765	150	205	165	250	820	430	35	275	330	28
9	180	845	185	275	205	330	845	490	40	260	370	36
10	180	895	185	275	205	330	945	490	40	310	370	36
11	180	1010	215	275	240	340	1005	600	50	295	440	40
12	180	1080	215	275	240	340	1160	600	50	380	440	40

Grootte Size	Afmetingen / Dimensions [mm]									Olie / Oil		Gew. / Weight (kg)				
	Uigaande as / Output									Druppel smering Dip lubrication (L)	Geforceerde smering Forced lubrication (L)					
	JRHB3SV			JRHB3HV			JRHB3DV									
	d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅							
4	80	140	170	80	140	85	85	140	205	20	-	210				
5	100	165	210	95	165	100	100	165	240	32	12	331				
6	110	165	210	105	165	110	110	165	240	35	13	387				
7	120	195	210	115	195	120	120	195	280	52	22	561				
8	130	195	250	125	195	130	130	195	285	67	28	647				
9	140	235	250	135	235	140	145	235	330	115	48	907				
10	160	235	300	150	235	150	155	235	350	125	52	1040				
11	170	270	300	165	270	165	170	270	400	180	75	1484				
12	180	270	300	180	270	180	185	270	405	200	85	1764				

Kegeltandwielkasten

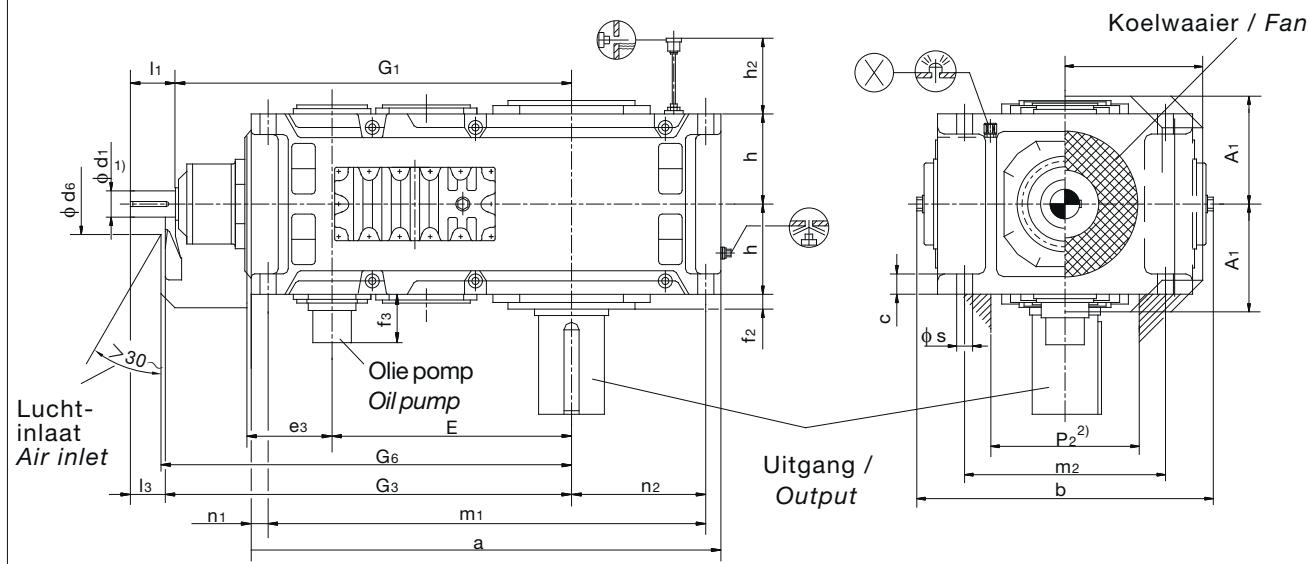
Drietraps Verticaal
Type JRHB3.V
Bouwgrootte 13 - 18

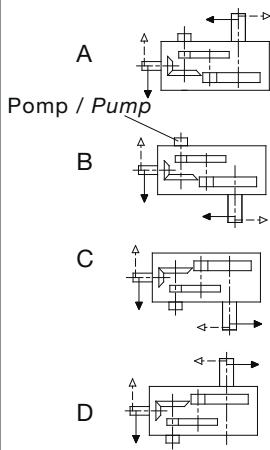
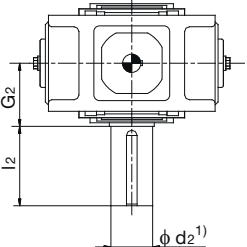
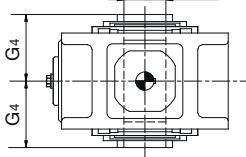
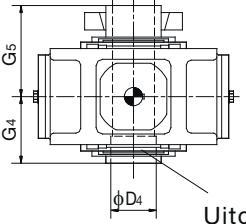
Bevel gear units

Three stage Vertical
Type JRHB3.V
Sizes 13 - 18

JRHB3SV JRHB3HV JRHB3DV

Geforceerde smering
Forced lubrication



Uitgang / Output			Bouwvorm / Design
JRHB3SV Massieve as <i>Solid shaft</i>	JRHB3HV Holle as <i>Hollow shaft</i>	JRHB3DV Holle as voor klembus <i>Hollow shaft for shrink disk</i>	 <p>A, D bouwvorm op aanvraag A, D designs on request</p>
			<p>Uitgang Output</p> <p>1) $m6 \leq \emptyset 100; n6 \geq \emptyset 100$ Voor spie en as specificaties zie blz 88, 89</p> <p>2) Specificaties voor pomp, leidingen en beschermkappen worden op aanvraag verstrekt</p> <p>1) $m6 \leq \emptyset 100; n6 \geq \emptyset 100$ Keyway and shaft specifications see page 88, 89</p> <p>2) Space for pump, pipes and cover. For exact dimensions, please refer to us.</p>

Kegeltandwielkasten

 Drietraps Verticaal
 Type JRHB3.V
 Bouwgrootte 13 - 18

Bevel gear units

 Three stage Vertical
 Type JRHB3.V
 Sizes 13 - 18

Grootte Size	Afmetingen / Dimensions [mm]																			
	Ingaande as / Input																			
	i _N =12.5-45			i _N =14-50			i _N =16-56			i _N =50-71			i _N =56-80			i _N =63-90				
	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃	d ₁	l ₁	l ₃		
13	80	165	130							60	140	105						1125	1160	
14							80	165	130							60	140	105	1195	1230
15	90	165	130							70	140	105						1367	1402	
16				90	165	130							70	140	105			1413	1448	
17	110	205	135							80	170	130						1560	1600	
18				110	205	165							80	170	130			1620	1660	

Grootte Size	Afmetingen / Dimensions [mm]									
	Tandwielkasten / Gear units									
	a	A ₁	b	B ₁	c	d ₆	e ₃	E	f ₂	f ₃
13	1290	325	900	475	61±2	210	265	635	35	170
14	1430	325	900	475	61±2	210	265	705	35	170
15	1550	365	980	520	72±2	210	320	762	42	170
16	1640	365	980	520	72±2	210	320	808	42	170
17	1740	395	1110	570	81±2	230	370	860	42	170
18	1860	395	1110	570	81±2	230	370	920	42	170

Grootte Size	Afmetingen / Dimensions [mm]								
	Tandwielkasten / Gear units								
	G ₆	h	h ₂	m ₁	m ₂	n ₁	n ₂	p ₂	s
13	1180	272.5	300	1195	680	50	360	500	48
14	1250	272.5	300	1335	680	50	430	500	48
15	1420	310	340	1435	750	60	430	570	55
16	1470	310	340	1525	750	60	475	570	55
17	1620	340	380	1610	850	70	465	630	55
18	1680	340	380	1730	850	70	525	630	55

Grootte Size	Afmetingen / Dimensions [mm]									Olie / Oil (L)	Gew. / Weight (kg)			
	Uigaande as / Output													
	JRHB3SV			JRHB3HV			JRHB3DV							
	d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅					
13	200	335	350	190	335	190	195	335	480	95	2305			
14	210	335	350	210	335	210	215	335	480	110	2667			
15	230	380	410	230	380	230	235	380	550	165	3610			
16	240	380	410	240	380	240	245	380	550	190	3840			
17	250	415	410	250	415	250	260	415	600	210	4855			
18	270	415	470	275	415	280	285	415	600	240	5344			

Kegeltandwielkasten

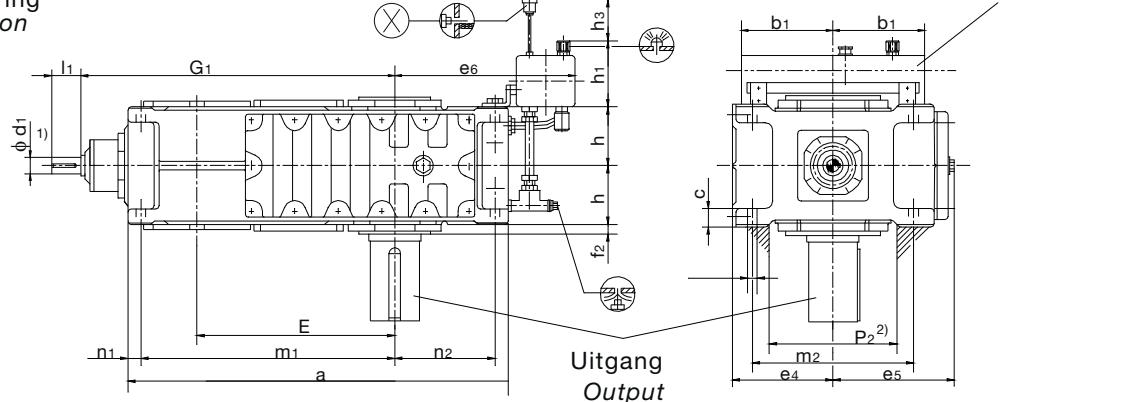
Viertraps Verticaal
Type JRHB4.V
Bouwgrootte 5 - 12

Bevel gear units

Four stage Vertical
Type JRHB4.V
Sizes 5 - 12

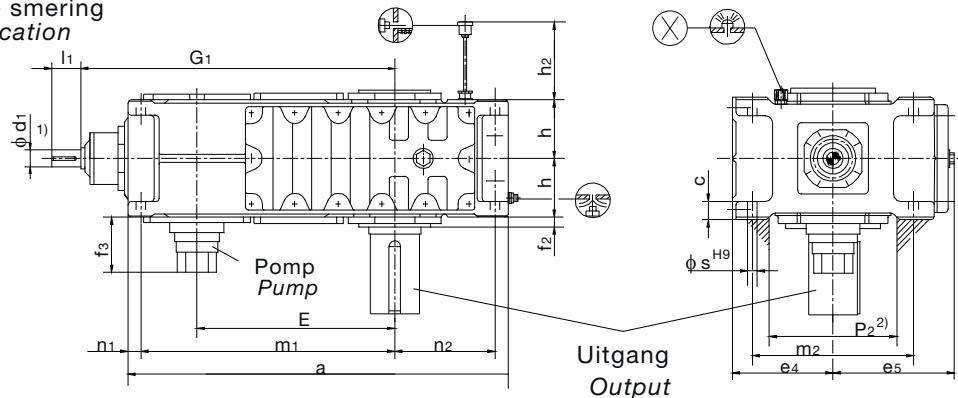
JRHB4SV JRHB4HV JRHB4DV

Dompelsmering
Dip lubrication



JRHB4SV JRHB4HV JRHB4DV

Geforceerde smering
Forced lubrication

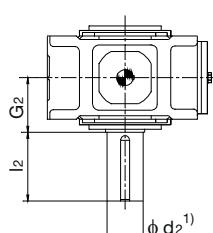


Uitgang / Output

Bouwworm / Design

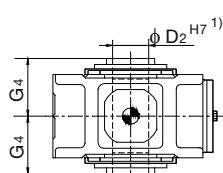
JRHB4SV

Massieve as
Solid shaft



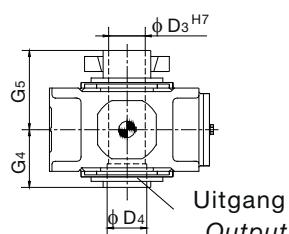
JRHB4HV

Holle as
Hollow shaft

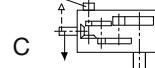
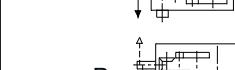
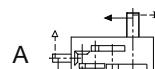


JRHB4DV

Holle as voor klembus
Hollow shaft for shrink disk



A, D bouwworm op aanvraag /
A, D designs on request



1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

2) Specificaties voor pomp, leidingen en beschermkappen worden op aanvraag verstrekt

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

2) Space for pump, pipes and cover.
For exact dimensions, please refer to us.

Kegeltandwielkasten

 Viertraps Vertical
 Type JRHB4.V
 Bouwgrootte 5 - 12

Bevel gear units

 Four stage Vertical
 Type JRHB4.V
 Sizes 5 - 12

Grootte Size	Afmetingen / Dimensions [mm]							
	Ingaande as / Input							
	i _N =80-180		i _N =100-224		i _N =200-315		i _N =250-400	
	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁
5	28	55			20	50		
6			28	55			20	50
7	30	70			25	60		
8			30	70			25	60
9	35	80			28	60		
10			35	80			28	60
11	45	100			35	80		
12			45	100			35	80
								1080

Grootte Size	Afmetingen / Dimensions [mm]								
	Tandwielkasten / Gear units								
	a	b ₁	c	e ₄		e ₆	E	f ₂	f ₃
5	690	240	30±1	230	252	385	405	28	200
6	770	240	30±1	230	252	425	440	28	200
7	845	240	36±1	280	292	425	495	30	120
8	950	240	36±1	280	302	485	540	32	120
9	1000	330	45±1.5	320	342	560	580	32	120
10	1100	330	45±1.5	320	342	610	630	32	120
11	1200	330	54±1.5	380	402	595	705	35	130
12	1355	330	54±1.5	380	410	680	775	35	130

Grootte Size	Afmetingen / Dimensions [mm]									
	Tandwielkasten / Gear units									
	h	h ₁	h ₂	h ₃	m ₁	m ₂	n ₁	n ₂	p ₂	s
5	127.5	205	190	240	630	360	30	175	270	24
6	127.5	205	190	240	710	360	30	220	270	24
7	150	205	165	250	775	430	35	215	330	28
8	150	205	165	250	880	430	35	275	330	28
9	185	275	205	330	920	490	40	260	370	36
10	185	275	205	330	1020	490	40	310	370	36
11	215	275	240	340	1100	600	50	295	440	40
12	215	275	240	340	1255	600	50	380	440	40

Grootte Size	Afmetingen / Dimensions [mm]									Olie / Oil		Gew. / Weight (kg)				
	Ungaande as / Output									Druppel smering Dip lubrication (L)	Geforceerde smering Forced lubrication (L)					
	JRHB4SV		JRHB4HV		JRHB4DV											
	d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅							
5	100	165	210	95	165	100	100	165	240	36	15	341				
6	110	165	210	105	165	110	110	165	240	40	16	392				
7	120	195	210	115	195	120	120	195	280	60	30	566				
8	130	195	250	125	195	130	130	195	285	70	35	668				
9	140	235	250	135	235	140	145	235	330	110	60	907				
10	160	235	300	150	235	150	155	235	350	130	67	1045				
11	170	270	300	165	270	165	170	270	400	180	75	1514				
12	180	270	300	180	270	180	185	270	405	195	85	1785				

Kegeltandwielkasten

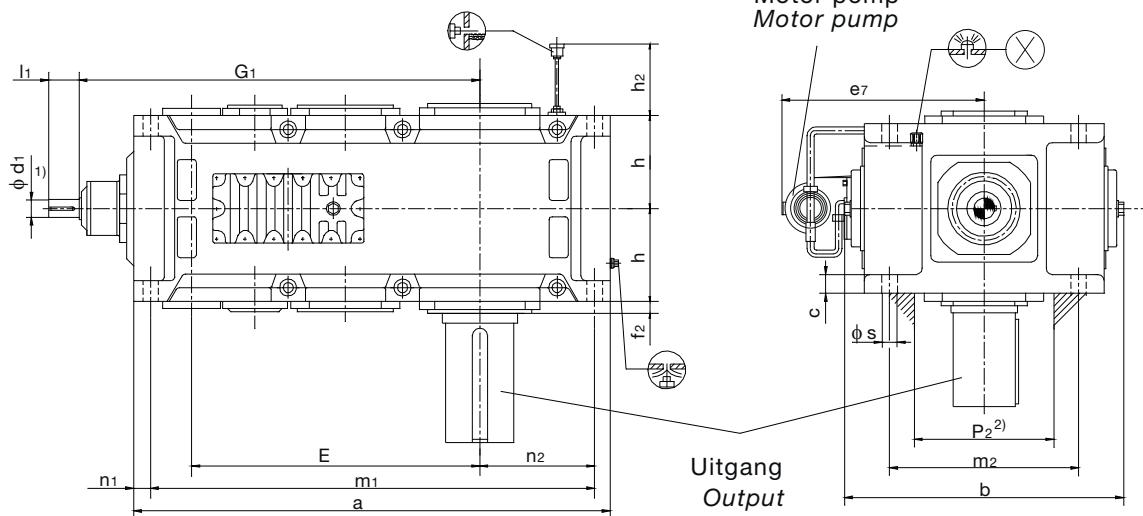
Viertraps Verticaal
Type JRHB4.V
Bouwgrootte 13 - 18

Bevel gear units

Four stage Vertical
Type JRHB4.V
Sizes 13 - 18

JRHB4SV JRHB4HV JRHB4DV

Geforceerde smering
Forced lubrication

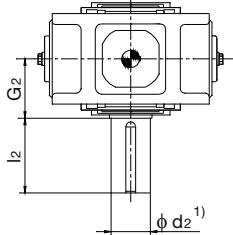


Uitgang / Output

Bouwvorm / Design

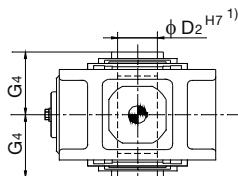
JRHB4SV

Massieve as
Solid shaft



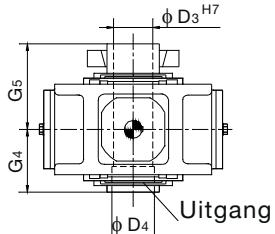
JRHB4HV

Holle as
Hollow shaft

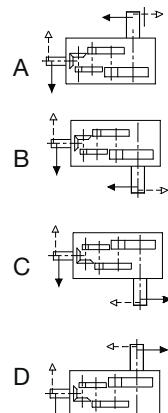


JRHB4DV

Holle as voor klembus
Hollow shaft for shrink disk



A, D bouwvorm op aanvraag / A, D designs on request



1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Voor spie en as specificaties zie blz 88, 89

2) Specificaties voor pomp, leidingen en beschermkappen worden op aanvraag verstrekt

1) $m6 \leq \emptyset 100$; $n6 \geq \emptyset 100$

Keyway and shaft specifications see page 88, 89

2) Space for pump, pipes and cover.
For exact dimensions, please refer to us.

Kegeltandwielkasten

 Viertraps Vertical
 Type JRHB4.V
 Bouwgrootte 13 - 18

Bevel gear units

 Four stage Vertical
 Type JRHB4.V
 Sizes 13 - 18

Grootte Size	Afmetingen / Dimensions [mm]												
	Ingaande as / Input												
	i _N =80-180		i _N =90-200		i _N =100-224		i _N =200-315		i _N =224-355		i _N =250-450		G ₁
	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	d ₁	l ₁	
13	55	110					40	100					1170
14					55	110					40	100	1240
15	70	135					50	110					1402
16			70	135					50	110			1448
17	70	135					50	110					1450
18			70	135					50	110			1510

Grootte Size	Afmetingen / Dimensions [mm]													
	Tandwielkasten / Gear units													
	a	b	c	e ₇	E	f ₂	h	h ₂	m ₁	m ₂	n ₁	n ₂	p ₂	s
13	1395	900	61±2	695	820	35	272.5	300	1300	680	50	360	500	48
14	1535	900	61±2	695	890	35	272.5	300	1440	680	50	430	500	48
15	1680	980	72±2	735	987	42	310	340	1565	750	60	430	570	55
16	1770	980	72±2	735	1033	42	310	340	1655	750	60	475	570	55
17	1770	1110	81±2	795	1035	42	340	374	1640	850	70	465	630	55
18	1890	1110	81±2	795	1095	42	340	374	1760	850	70	525	630	55

Grootte Size	Afmetingen / Dimensions [mm]									Olie / Oil (L)	Gew. / Weight (kg)	
	Uigaande as / Output			JRHB4SV			JRHB4HV					
	JRHB4DV			d ₂	G ₂	l ₂	D ₂	G ₄	D ₃	D ₄	G ₄	G ₅
	13	200	335	350	190	335	190	195	335	480	130	2325
14	210	335	350	210	335	210	215	335	480	150	2657	
15	230	380	410	230	380	230	235	380	550	200	3503	
16	240	380	410	240	380	240	245	380	550	235	3840	
17	250	415	410	250	415	250	260	415	600	215	4549	
18	270	415	470	275	415	280	285	415	600	250	5028	

Tandwielkasten

Centergaten aseinden
Bouwvorm DS
Volgens DIN 332/1

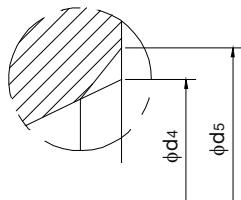
Gear units

Centre holes shaft ends
Form DS
Acc. to DIN 332/1

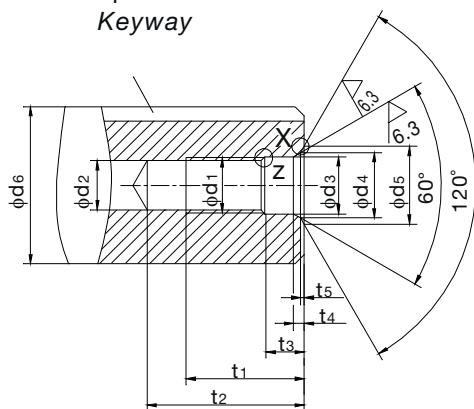
Bouwvorm DS
Rechte draadeind
Verzonken boorgat

Form DS
Tapped hole, with straight running face and counterbore

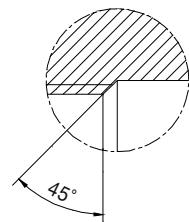
Detail "X"



Spiebaan
Keyway



Detail "Z"



Recommended diameters Recommended diameters		Bouwvorm DS / Form DS											
van above	tot to	Center Centering	d ₁	d ₂ 2)	d ₃	d ₄	d ₅	t ₁	t ₂ min.	t ₂ max.	t ₃	t ₄	t ₅
	mm							mm					
16	21	DS 6	M 6	5	6.4	9.6	10.5	16	20	22	5	2.8	0.4
21	24	DS 8	M 8	6.8	8.4	12.2	13.2	19	25	28	6	3.3	0.4
24	30	DS 10	M 10	8.5	10.5	14.9	16.3	22	30	34	7.5	3.8	0.6
30	38	DS 12	M 12	10.2	13	18.1	19.8	28	37	42	9.5	4.4	0.7
38	50	DS 16	M 16	14	17	23	25.3	36	45	50	12	5.2	1.0
50	85	DS 20	M 20	17.5	21	28.4	31.3	42	53	59	15	6.4	1.3
85	130	DS 24	M 24	21	25	34.2	38	50	63	68	18	8	1.6
130*	225*	DS 30	M 30*	26.5	31	44	48	60	77	83	17	11	1.9
225*	320*	DS 36	M 36*	32	37	55	60	74	93	99	22	15	2.3
320*	500*	DS 42	M 42*	37.5	43	65	71	84	105	111	26	19	2.7

1) Diameter van de nabewerkte as

2) Boardiameter voor draadgaten volgens DIN 336 deel 1

*) Afmetingen niet volgens DIN332

1) Diameter of the finished work piece

2) Drill diameters for tapping-size holes acc.to DIN 336Pt.1

*) Dimensions not acc.to DIN332

Tandwielkasten

 ISO passingen
 Spieën
 Spiebanen

Gear units

 ISO fits
 Parallel keys
 Keyways

Selectie van ISO passingen / Selection of ISO Fits						
Selectie van ISO passingen Selection of ISO fits	/Shaft d van above mm	tot to mm	As tolerances Shaft tolerance		Gattoleranties Bore tolerance	
Astoleranties volgens fabriekstandaard <i>Shaft tolerance acc.to manufacturer standard</i>		25	k6		H7	
	25	100	m6			
	100		n6			

Bij zwaar bedrijf, zoals intermitterend bedrijf, adviseren wij een hogere tolerantie voor de naaf met een ISO P9 passing.

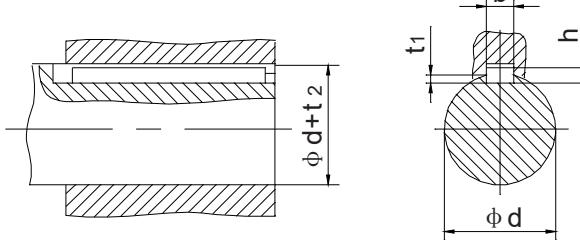
Dit dient bij bestelling gespecificeerd te worden.

For heavy-duty Operating conditions, e.g. reversing under load, it is recommended that a tighter fit and for the hub keyway width the ISO P9 tolerance is selected.

In this case, the customer should give the relevant information.

Spiebanen voor cilindrische assen / Parallel keys						
Montage ingaande as zonder asborging Drive type fastening without taper action	Diameter d van above mm	Breedte/ Width b 1) mm	Hoogte/ Height h mm	Diepte van spiebaan in as / Depth of keyway in shaft t ₁ mm	Diepte van de spiebaan in naaf / Depth of keyway in hub d + t ₂ DIN 6885/1 mm	
Cilindrische as en spiebaan volgens DIN 6885/1 Parallel key and keyway acc.to DIN 6885/1	30	38	10	8	5	d+3.3
	38	44	12	8	5	d+3.3
	44	50	14	9	5.5	d+3.8
	50	58	16	10	6	d+4.3
	58	65	18	11	7	d+4.4
	65	75	20	12	7.5	d+4.9
	75	85	22	14	9	d+5.4
	85	95	25	14	9	d+5.4
	95	110	28	16	10	d+6.4
	110	130	32	18	11	d+7.4
	130	150	36	20	12	d+8.4
	150	170	40	22	13	d+9.4
	170	200	45	25	15	d+10.4
	200	230	50	28	17	d+11.4
	230	260	56	32	20	d+12.4
	260	290	63	32	20	d+12.4
	290	330	70	36	22	d+14.4
	330	380	80	40	25	d+15.4
	380	440	90	45	28	d+17.4
	440	500	100	50	31	d+19.4

- 1) Het tolerantieveld voor spiebreedte "b" is voor standaard bedrijf ISO JS9, en voor heavy-duty bedrijf ISO P9.
- 1) *The tolerance zone for the hub keyway width b for parallel keys is ISO JS9, or ISO P9 for heavy-duty operating conditions.*

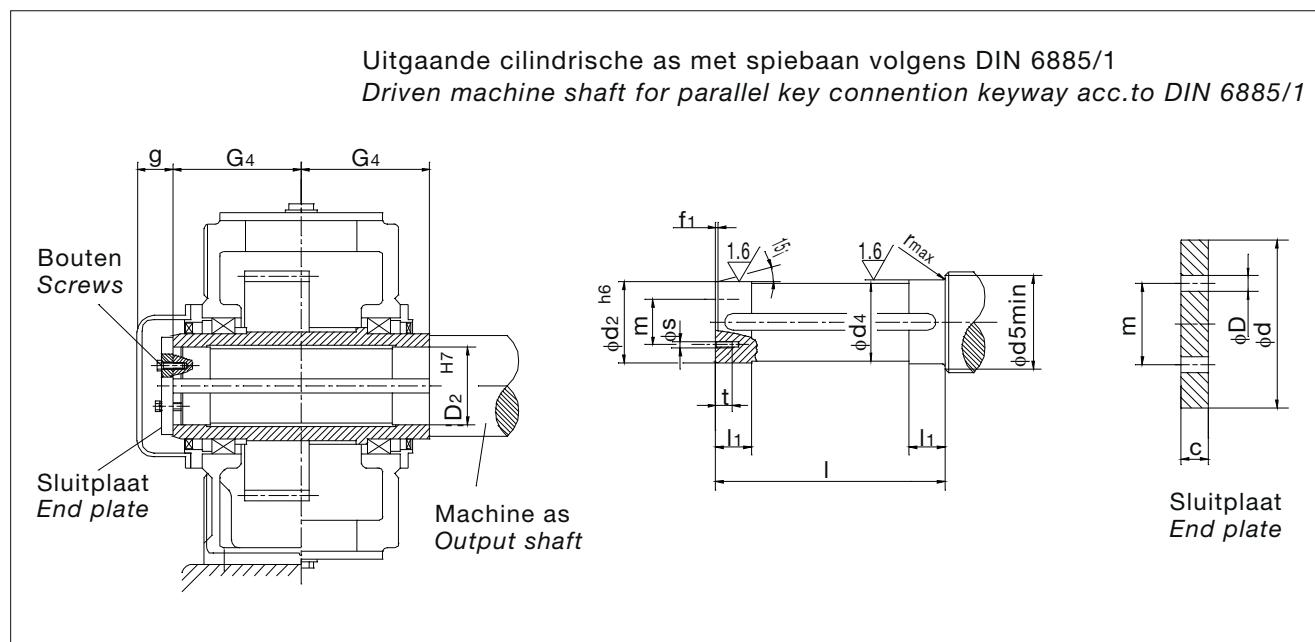


Tandwielkasten

Holle uitgaande as met spieverbinding
Typen JRHH2-4 / JRHB3-4
Bouwgrootte 4 - 18

Gear units

Hollow output shafts with key connection
Types JRHH2-4 / JRHB3-4
Sizes 4 - 18



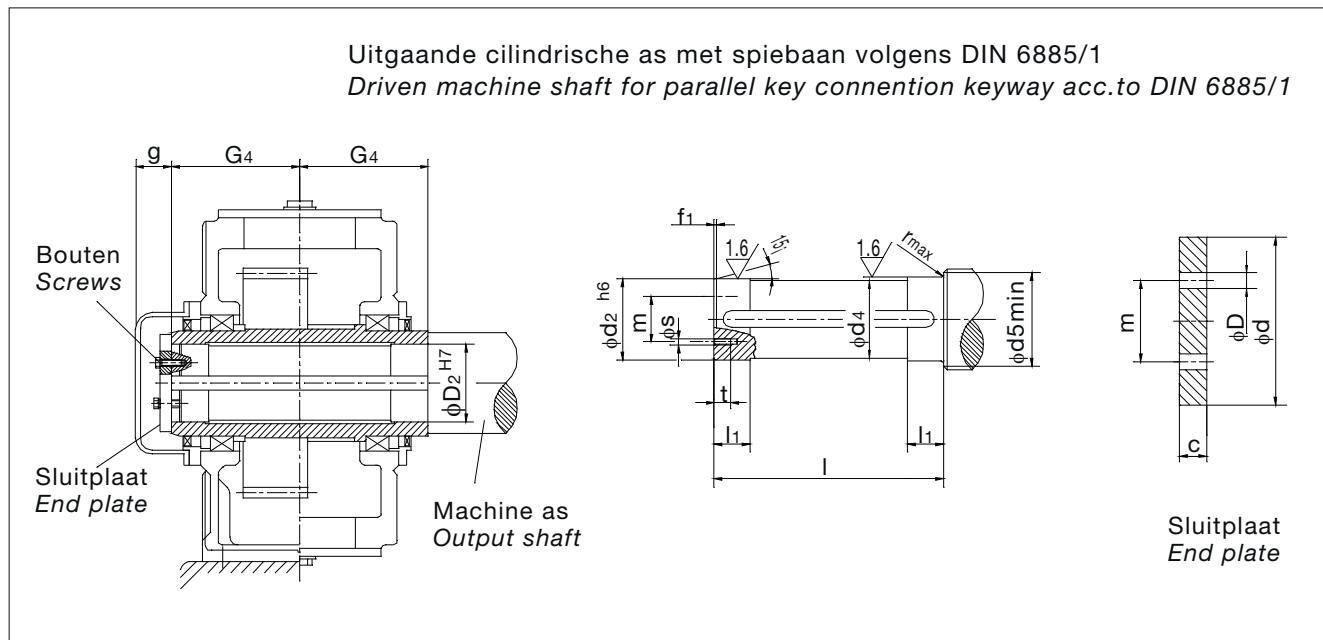
Types JRHH2H, JRHH3H, JRHH4H, JRHB3H, JRHB4H																			
Kast groote Gear units size	Machine as Driven machine shaft										Sluitplaat End plate				Bout Screw		Holle as Hollow shaft		
	d ₂	d ₄	d ₅	f ₁	l	l ₁	r	s	t	c	D	d	m	Boutmaat Size	Aant. Qty	D ₂	G ₄	g	
4	80	79.5	88	4	278	35	1.2	M10	18	10	11	100	60	M10X25	2	80	140	35	
5	95	94.5	105	5	328	40	1.6	M10	18	10	11	120	70	M10X25	2	95	165	40	
6	105	104.5	116	5	328	45	1.6	M10	18	10	11	120	70	M10X25	2	105	165	40	
7	115	114.5	126	5	388	50	1.6	M12	20	12	13.5	140	80	M12X30	2	115	195	40	
8	125	124.5	136	6	388	55	2.5	M12	20	12	13.5	150	85	M12X30	2	125	195	40	
9	135	134.5	147	6	467	60	2.5	M12	20	12	13.5	150	90	M12X30	2	135	235	45	
10	150	149.5	162	6	467	65	2.5	M12	20	12	13.5	185	110	M12X30	2	150	235	45	
11	165	164.5	177	7	537	70	2.5	M16	28	15	17.5	195	120	M16X40	2	165	270	45	
12	180	179.5	192	7	537	75	2.5	M16	28	15	17.5	220	130	M16X40	2	180	270	45	
13	190	189.5	206	7	667	80	3	M16	28	18	17.5	230	140	M16X40	2	190	335	45	
14	210	209.5	226	8	667	85	3	M16	28	18	17.5	250	160	M16X40	2	210	335	45	
15	230	229.5	248	8	756	100	3	M20	38	25	22	270	180	M20X55	4	230	380	60	
16	240	239.5	258	8	756	100	3	M20	38	25	22	280	180	M20X55	4	240	380	60	
17	250	249.5	270	8	826	110	4	M20	38	25	22	300	190	M20X55	4	250	415	60	
18	275	274.5	295	9	826	120	4	M20	38	25	22	330	210	M20X55	4	275	415	60	

Tandwielkasten

Holle uitgaande as met spieverbinding
Typen JRHB2
Bouwgrootte 4 - 18

Gear units

Hollow output shafts with key connection
Types JRHB2
Sizes 4 - 18



Type JRHB2H																		
Kast groote Gear units size	Machine as Driven machine shaft										Sluitplaat End plate				Bout Screw			
	d ₂	d ₄	d ₅	f ₁	l	l ₁	r	s	t	c	D	d	m	Boutmaat Size	Aant. Qty	D ₂	G ₄	g
4	80	79.5	88	4	338	35	1.2	M10	18	10	11	100	60	M10X25	2	80	170	35
5	95	94.5	105	5	398	40	1.6	M10	18	10	11	120	70	M10X25	2	95	200	40
6	105	104.5	116	5	398	45	1.6	M10	18	10	11	120	70	M10X25	2	105	200	40
7	115	114.5	126	5	468	50	1.6	M12	20	12	13.5	140	80	M12X30	2	115	235	40
8	125	124.5	136	6	468	55	2.5	M12	20	12	13.5	150	85	M12X30	2	125	235	40
9	135	134.5	147	6	537	60	2.5	M12	20	12	13.5	150	90	M12X30	2	135	270	45
10	150	149.5	162	6	537	65	2.5	M12	20	12	13.5	185	110	M12X30	2	150	270	45
11	165	164.5	177	7	637	70	2.5	M16	28	15	17.5	195	120	M16X40	2	165	320	45
12	180	179.5	192	7	637	75	2.5	M16	28	15	17.5	220	130	M16X40	2	180	320	45
14	210	209.5	226	8	777	85	3	M16	28	18	17.5	250	160	M16X40	2	210	390	45
16	240	239.5	258	8	896	100	3	M20	38	25	22	280	180	M20X55	4	240	450	60
18	275	274.5	295	9	1016	120	4	M20	38	25	22	330	210	M20X55	4	275	510	60

Tandwielkasten

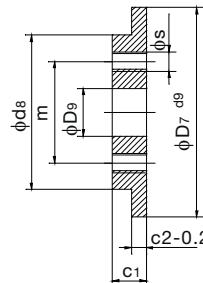
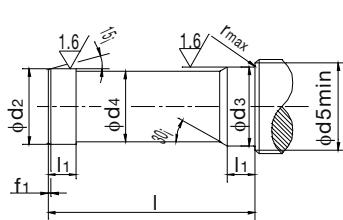
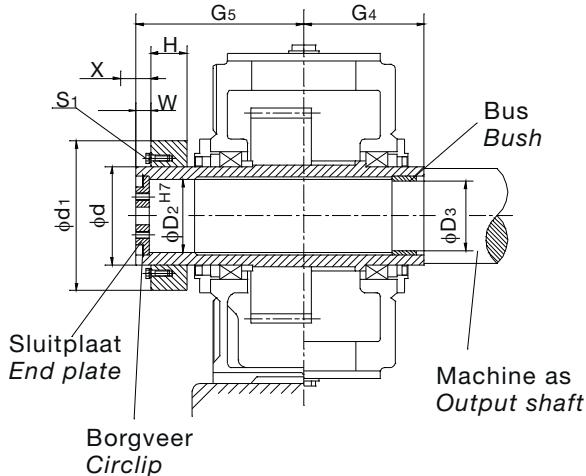
Holle uitgaande as met klembusverbinding
Typen JRHH2-4 / JRHB3-4
Bouwgrootte 4 - 22

Gear units

Hollow output shafts with shrink disks
Types JRHH2-4 / JRHB3-4
Sizes 4 - 22

X = Ruimte benodigd voor de momentsleutel
X = Space required for torque wrench

Uitgaande as moet voor montage gereinigd worden,
en vrij van olie of vet
Driven machine shaft must be free of oil or grease



Sluitplaat
End plate

Types JRHH2D, JRHH3D, JRHH4D, JRHB3D, JRHB4D

Kast grootte Gear units size	Machine as 1) Driven machine shaft 1)							Sluitplaat End plate							Holle as Hollow shaft				Klembus Shrink disk				Bout Screw				
	d ₂	d ₃	d ₄	d ₅	f ₁	I	l ₁	r	c ₁	c ₂	D ₇	d ₈	d ₉	m	s	Aant. Qty	DIN 472	D ₂	D ₃	G ₄	G ₅	Type	d	d ₁	H	W	S ₁
4	85g6	85h6	84.5	95	4	326	48	2	17	7	90	70	22	50	M8	2	90x3	85	85	140	205	110-32	110	185	51	20	M12
5	100g6	100h6	99.5	114	5	383	53	2	20	8	105	80	26	55	M10	2	105x4	100	100	165	240	125-32	125	215	53	20	M12
6	110g6	110h6	109.5	124	5	383	58	3	20	8	115	85	26	60	M10	2	115x4	110	110	165	240	140-32	140	230	58	20	M14
7	120g6	120h6	119.5	134	5	453	68	3	20	8	125	90	26	65	M12	2	125x4	120	120	195	280	155-32	155	263	62	23	M14
8	130g6	130h6	129.5	145	6	458	73	3	20	8	135	100	26	70	M12	2	135x4	130	130	195	285	165-32	165	290	68	23	M16
9	140g6	145m6	139.5	160	6	539	82	4	23	10	150	110	33	80	M12	2	150x4	140	145	235	330	175-32	175	300	68	28	M16
10	150g6	155m6	149.5	170	6	559	92	4	23	10	160	120	33	90	M12	2	160x4	150	155	235	350	200-32	200	340	85	28	M16
11	165f6	170m6	164.5	185	7	644	112	4	23	10	175	130	33	90	M12	2	175x4	165	170	270	400	220-32	220	370	103	30	M20
12	180f6	185m6	179.5	200	7	649	122	4	23	10	190	140	33	100	M16	2	190x4	180	185	270	405	240-32	240	405	107	30	M20
13	190f6	195m6	189.5	213	7	789	137	5	23	10	200	150	33	110	M16	2	200x4	190	195	335	480	260-32	260	430	119	30	M20
14	210f6	215m6	209.5	233	8	784	147	5	28	14	220	170	33	130	M16	2	220x5	210	215	335	480	280-32	280	460	132	30	M20
15	230f6	235m6	229.5	253	8	899	157	5	28	14	240	180	39	140	M16	2	240x5	230	235	380	550	300-32	300	485	140	35	M24
16	240f6	245m6	239.5	263	8	899	157	5	28	14	250	190	39	150	M20	2	250x5	240	245	380	550	320-32	320	520	140	35	M24
17	250f6	260m6	249.5	278	8	982	177	5	30	14	265	200	39	150	M20	2	265x5	250	260	415	600	340-32	340	570	155	35	M24
18	280f6	285m6	279.5	306	9	982	177	5	30	14	290	210	39	160	M20	2	290x5	280	285	415	600	360-32	360	590	162	35	M24
19	285f6	295m6	284.5	316	9	1100	187	5	32	15	300	220	39	170	M24	2	300x5	285	295	465	670	380-32	380	640	166	40	M27
20	310f6	315m6	309.5	336	9	1100	187	5	32	15	320	230	39	180	M24	2	320x6	310	315	465	670	390-32	390	650	166	40	M27
21	330f6	335m6	329	358	9	1160	205	5	40	20	340	250	45	190	M24	2	340x6	330	335	490	715	420-32	420	670	186	45	M27
22	340f6	345m6	339	368	9	1170	215	5	40	20	350	260	45	200	M24	2	350x6	340	345	490	725	440-32	440	720	194	45	M27

1) De klembus is niet inbegrepen bij de levering.
Deze kan separaat besteld worden.

1) Shrink disk does not belong to our scope of supply.
Please order separately, if required.

Tandwielkasten

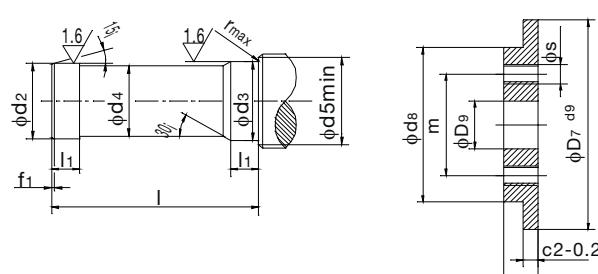
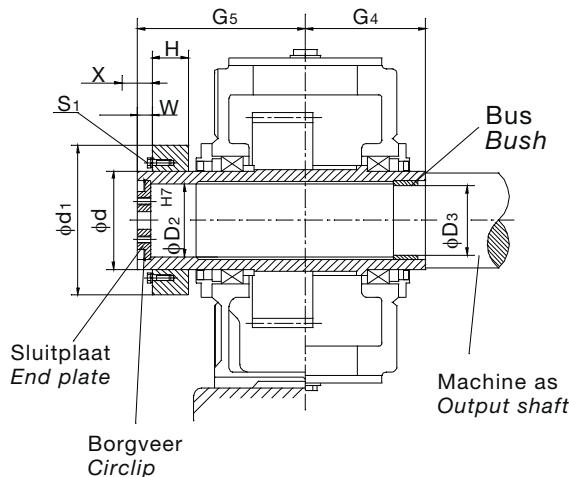
Holle uitgaande as met klembusverbinding
Typen JRHB2
Bouwgrootte 4 - 18

Gear units

Hollow output shafts with shrink disks
Types JRHB2
Sizes 4 - 18

X = Ruimte benodigd voor de momentsleutel
X = Space required for torque wrench

Uitgaande as moet voor montage gereinigd worden,
en vrij van olie of vet
Driven machine shaft must be free of oil or grease



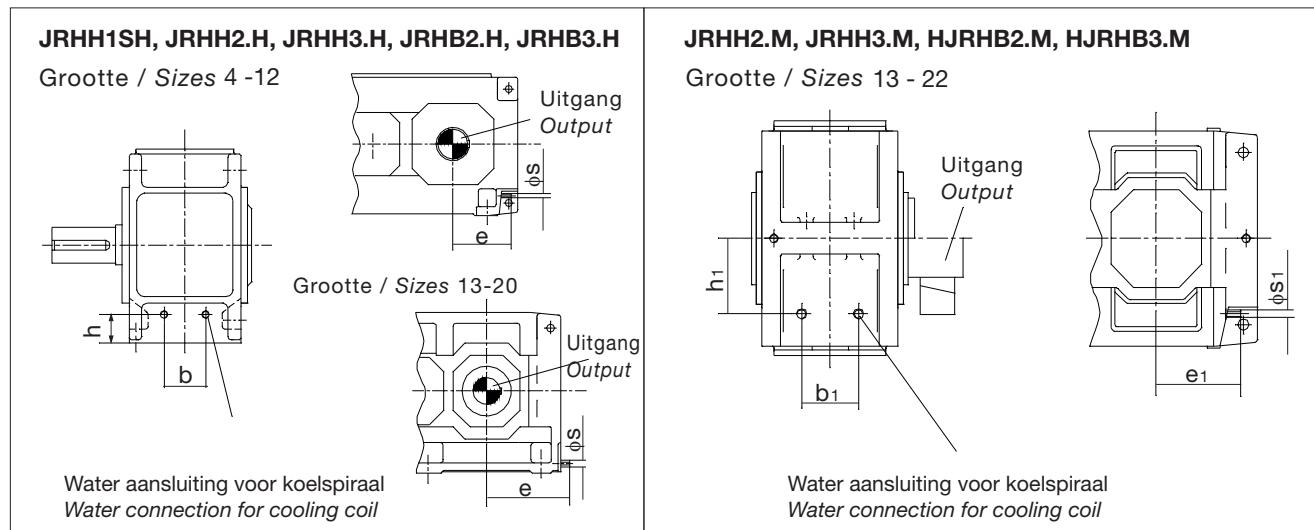
Type JRHB2D																											
Kast grootte Gear units size	Machine as 1) Driven machine shaft 1)								Sluitplaat End plate								DIN 472	Holle as Hollow shaft				Klembus Shrink disk				Bout Screw S1	
	d ₂	d ₃	d ₄	d ₅	f ₁	I	l ₁	r	c ₁	c ₂	D ₇	d ₈	d ₉	m	s	Aant. Qty		D ₂	D ₃	G ₄	G ₅	Type	d	d ₁	H	W	
4	85g6	85h6	84.5	95	4	386	48	2	17	7	90	70	22	50	M8	2	90x3	85	85	170	235	110-32	110	185	51	20	M12
5	100g6	100h6	99.5	114	5	453	53	2	20	8	105	80	26	55	M10	2	105x4	100	100	200	275	125-32	125	215	53	20	M12
6	110g6	110h6	109.5	124	5	453	58	3	20	8	115	85	26	60	M10	2	115x4	110	110	200	275	140-32	140	230	58	20	M14
7	120g6	120h6	119.5	134	5	533	68	3	20	8	125	90	26	65	M12	2	125x4	120	120	235	320	155-32	155	263	62	23	M14
8	130g6	130h6	129.5	145	6	538	73	3	20	8	135	100	26	70	M12	2	135x4	130	130	235	325	165-32	165	290	68	23	M16
9	140g6	145m6	139.5	160	6	609	82	4	23	10	150	110	33	80	M12	2	150x4	140	140	270	365	175-32	175	300	68	28	M16
10	150g6	155m6	149.5	170	6	629	92	4	23	10	160	120	33	90	M12	2	160x4	150	155	270	385	200-32	200	340	85	28	M16
11	165f6	170m6	164.5	185	7	744	112	4	23	10	175	130	33	90	M12	2	175x4	165	170	320	450	220-32	220	370	103	30	M20
12	180f6	185m6	179.5	200	7	749	122	4	23	10	190	140	33	100	M16	2	190x4	180	185	320	455	240-32	240	405	107	30	M20
14	210f6	215m6	209.5	233	8	894	147	5	28	14	220	170	33	130	M16	2	220x5	210	215	390	535	280-32	280	460	132	30	M20
16	240f6	245m6	239.5	263	8	1039	157	5	28	14	250	190	39	150	M20	2	250x5	240	245	450	620	320-32	320	520	140	35	M24
18	280f6	285m6	279.5	306	9	1177	177	5	30	14	290	210	39	160	M20	2	290x5	280	285	510	700	360-32	360	590	162	35	M24

Tandwielkasten

Koelspiralen Horizontaal
Typen: alle horizontale typen
Bouwgrootte 3 - 22

Gear units

Cooling coils Horizontal
Types: all horizontal types
Sizes 3 - 22



Grootte Size	Type JRHH1SH					Types JRHH2.H/JRHB3.H					Type JRHH3.H					Type JRHB2.H				
	b mm	e mm	h mm	s	1)	b mm	e mm	h mm	s	1)	b mm	e mm	h mm	s	1)	b mm	e mm	h mm	s	1)
3	48	205	74	G1/2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	34	155	60	G1/2	4	-	-	-	-	-	74	160	54	G1/2	4
5	88	270	90	G1/2	4	68	170	64	G1/2	4	70	175	60	G1/2	4	130	175	62	G1/2	8
6	-	-	-	-	-	70	215	68	G1/2	4	70	220	69	G1/2	4	120	220	68	G1/2	4
7	124	310	135	G1/2	4	100	210	83	G1/2	4	80	210	83	G1/2	4	140	210	80	G1/2	8
8	-	-	-	-	-	100	270	83	G1/2	4	80	270	83	G1/2	4	140	270	80	G1/2	4
9	116	365	110	G1/2	8	140	245	110	G1/2	8	150	245	107	G1/2	4	232	245	110	G1/2	8
10	-	-	-	-	-	100	295	95	G1/2	8	90	295	95	G1/2	4	150	295	90	G1/2	8
11	146	425	130	G1/2	8	110	275	95	G1/2	8	200	275	115	G1/2	8	312	275	115	G1/2	8
12	-	-	-	-	-	200	360	109	G1/2	8	200	360	115	G1/2	8	300	360	115	G1/2	8
13	152	480	150	G1/2	8	252	455	116	G1/2	8	252	460	116	G1/2	8	324	460	116	G1/2	8
14	-	-	-	-	-	252	525	116	G1/2	8	252	530	116	G1/2	8	324	530	116	G1/2	8
15	172	560	130	G1/2	8	290	535	119	G1/2	8	290	540	119	G1/2	8	396	540	119	G1/2	8
16	-	-	-	-	-	290	580	119	G1/2	8	290	585	119	G1/2	8	396	585	119	G1/2	8
17	202	600	145	G1/2	8	340	575	134	G1/2	8	300	580	134	G1/2	8	468	580	134	G1/2	8
18	-	-	-	-	-	340	635	134	G1/2	8	300	640	134	G1/2	8	468	640	134	G1/2	8
19-22	Op aanvraag On request					Op aanvraag On request					Op aanvraag On request									

Grootte Size	Types JRHH2.M/JRHB3.M					Type JRHH3.M					Type JRHB2.M				
	b ₁ mm	e ₁ mm	h ₁ mm	s ₁	1)	b ₁ mm	e ₁ mm	h ₁ mm	s ₁	1)	b ₁ mm	e ₁ mm	h ₁ mm	s ₁	1)
13	252	335	300	G1/2	8	252	335	300	G1/2	8	324	335	300	G1/2	8
14	252	405	300	G1/2	8	252	405	300	G1/2	8	324	405	300	G1/2	8
15	290	395	335	G1/2	8	290	395	340	G1/2	8	396	390	345	G1/2	8
16	290	440	335	G1/2	8	290	440	340	G1/2	8	396	435	345	G1/2	8
17	340	425	380	G1/2	8	300	425	380	G1/2	8	324	425	395	G1/2	8
18	340	485	380	G1/2	8	300	485	380	G1/2	8	324	485	395	G1/2	8
19-22	Op aanvraag On request					Op aanvraag On request									

1) Benodigde hoeveelheid koelwater (L/min)
Koelspiraal geschikt voor zoet, zout en brak water

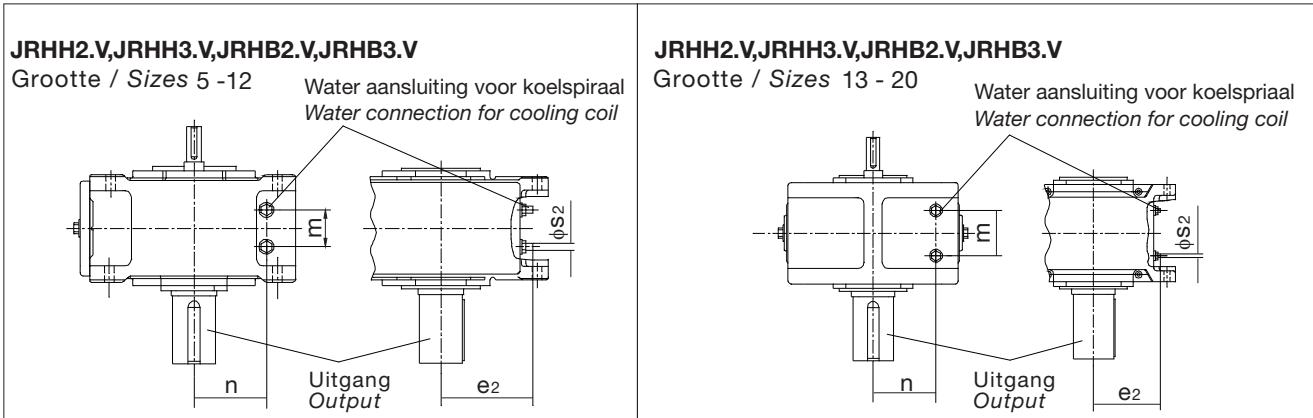
1) Required cooling water quantity (L/min)
Cooling coil suitable for fresh, sea and brackish

Tandwielkasten

Koelspiralen Vertical
Typen: alle verticale typen
Bouwgroottes 4 - 20

Gear units

Cooling coils Vertical
Types: all vertical types
Sizes 4 - 20



Grootte Size	Types JRHH2.V, JRHB3.V					Type JRHH3.V					Type JRHB2.V				
	m mm	n mm	e ₂ mm	s ₂	1)	m mm	n mm	e ₂ mm	s ₂	1)	m mm	n mm	e ₂ mm	s ₂	1)
4	34	140	155	G1/2	4	-	-	-	-	-	74	146	160	G1/2	4
5	68	166	170	G1/2	4	70	170	175	G1/2	4	130	168	175	G1/2	8
6	70	162	215	G1/2	4	70	161	220	G1/2	4	120	162	220	G1/2	4
7	100	197	210	G1/2	4	80	197	210	G1/2	4	140	200	210	G1/2	8
8	100	197	270	G1/2	4	80	197	270	G1/2	4	140	200	270	G1/2	4
9	140	210	245	G1/2	8	150	213	245	G1/2	4	232	210	245	G1/2	8
10	100	225	295	G1/2	8	90	225	295	G1/2	4	150	230	295	G1/2	8
11	110	285	275	G1/2	8	200	265	275	G1/2	8	312	265	275	G1/2	8
12	200	271	360	G1/2	8	200	265	360	G1/2	8	300	265	360	G1/2	8
13	252	300	335	G1/2	8	252	300	335	G1/2	8	324	300	335	G1/2	8
14	252	300	405	G1/2	8	252	300	405	G1/2	8	324	300	405	G1/2	8
15	290	335	395	G1/2	8	290	340	395	G1/2	8	396	345	390	G1/2	8
16	290	335	440	G1/2	8	290	340	440	G1/2	8	396	345	435	G1/2	8
17	340	380	425	G1/2	8	300	380	425	G1/2	8	324	395	425	G1/2	8
18	340	380	485	G1/2	8	300	380	485	G1/2	8	324	395	485	G1/2	8
19-20	Op aanvraag On request					Op aanvraag On request									

Koelspiraal voor / Cooling coil for															
Type	Grootte Size	Druppelsmering Dip lubrication				Geforceerde smering met aangeflansde pomp Forced lubrication with flanged on pump				Geforceerde smering met motorpomp Forced lubrication with motor pump					
		A	B	C	D	A	B	C	D	A	B	C	D		
JRHH2.V	4-12 13-18	X -	X -	X -	X -	-	X X	-	X X						
JRHH3.V	4-12 13-18	X -	X -	X -	X -	-	X X	-	X X						
JRHB2.V	4-12 13-18	X -	X -	X -	X -	X X	X X	-	-						
JRHB3.V	4-12 13-18	X -	X -	X -	X -	-	-	X X	X X						

X = Mogelijke uitvoeringen

1) Benodigde hoeveelheid koelwater (L/min)
Koelspiraal geschikt voor zoet, zout en brak water

X = Possible variants

1) Required cooling water quantity (L/min)
Cooling coil suitable for fresh, sea and brackish

7. Precieze overbrengingsverhoudingen / Actual ratios

Parallelle tandwielkasten

Precieze overbrengingsverhoudingen

Typen JRHH1-4

Bouwgrootte 3 - 28

Helical gear units

Actual ratios

Types JRHH1-4

Sizes 3 - 28

		Precieze overbrengingsverhoudingen i / Actual Ratios i																												
		Tandwielkast grootte / Gear unit sizes																												
iN		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28			
1.25	1.243		1.256		1.263		1.270																							
1.4	1.371		1.378		1.389		1.400																							
1.6	1.594		1.588		1.606		1.625		1.636		1.588																			
1.8	1.829		1.839		1.774		1.800		1.806		1.839																			
2	2.000		2.034		1.966		2.000		2.000		2.034		2.000		2.000		1.967													
2.24	2.194		2.259		2.308		2.231		2.222		2.259		2.231		2.250		2.296													
2.5	2.536		2.520		2.583		2.500		2.480		2.520		2.481		2.481		2.560													
2.8	2.808		2.826		2.800		2.741		2.783		2.826		2.760		2.760		2.870													
3.15	3.125		3.190		3.130		3.208		3.080		3.208		3.087		3.087		3.238													
3.55	3.500		3.591		3.524		3.591		3.478		3.591		3.476		3.476		3.450													
4	3.950		4.050		4.000		4.050		3.905		4.050		3.947		3.947		3.944													
4.5	4.473	4.487	4.619		4.400		4.381		4.421		4.619		4.579		4.526		4.400													
5	4.853	4.940	4.900		4.905		4.947		5.150		4.900		5.100		4.900		4.950													
5.6	5.492	5.444	5.556		5.526		5.684		5.474		5.556		5.778		5.556		5.700													
6.3	6.232	6.319	6.286		6.088		6.260		6.246		6.410		6.449		6.154		6.410					6.448		6.432						
7.1	7.100	6.857	7.213		7.048		7.247		6.900		7.100		7.120		7.316		7.125		7.147		7.100		7.312		7.200		7.222	7.242	7.102	7.323
8	7.765	7.778	7.889	7.792	7.799	7.676	8.018	7.848	7.644	7.941	7.889	7.944	7.882	8.076	7.884	8.274	7.889	8.100	8.000	8.047	8.125	8.111	8.292	8.085	8.164					
9	8.516	8.485	8.652	8.940	8.660	8.887	8.904	9.085	8.974	8.772	8.799	8.800	8.758	8.941	8.755	9.155	8.799	9.000	8.923	8.941	8.961	9.125	9.244	9.440	8.949	9.295				
10	9.845	9.722	10.002	9.778	9.660	9.833	9.932	10.053	10.046	9.718	9.861	9.778	9.774	9.935	9.765	10.167	9.788	10.038	9.926	9.973	10.064	10.362	10.524	10.146	10.188					
11.2	10.900	10.694	11.075	10.724	10.648	10.920	11.138	11.163	10.889	11.410	10.811	10.906	10.967	11.087	10.951	11.340	10.887	11.167	11.040	11.094	11.147	11.193	11.693	11.797	11.594	11.550				
12.5	12.132	12.444	12.326	12.397	11.807	12.180	12.574	12.452	12.174	12.773	12.655	12.222	12.139	12.440	12.432	12.717	12.176	12.420	12.348	12.339	12.553	12.519	12.458	13.312	12.734	13.199				
14	13.588	13.865	13.806	13.726	13.939	13.426	14.152	13.964	13.704	13.844	14.164	13.399	13.708	13.769	13.915	14.438	13.712	13.891	13.905	13.801	14.254	14.098	14.244	14.183	14.657	14.497				
16	15.355	15.556	15.581	15.278	15.717	14.887	15.962	15.765	15.556	15.478	15.975	15.685	15.389	15.550	15.694	16.159	15.570	15.643	15.789	15.541	16.345	16.009	15.889	16.216	16.651	16.686				
18	17.378	17.602	17.493	17.111	17.598	17.576	18.204	17.743	17.111	17.423	17.280	17.556	17.424	17.457	17.899	18.225	18.061	17.763	18.316	17.647	17.694	18.357	17.875	18.089	17.843	18.957				
20	19.616	19.444	19.534	19.311	19.742	19.817	19.312	20.012	19.074	19.778	19.515	19.800	20.297	19.765	18.988	20.786	20.117	20.605	20.400	20.471	19.328	19.872	19.218	20.350	19.183	20.314				
22.4	21.630	22.037	22.006	21.681	20.982	22.189	21.895	22.824	21.491	21.756	22.020	21.418	21.374	23.024	20.930	22.050	21.782	22.950	22.368	22.800	23.325	21.778	22.623	22.129	23.817	21.799				
25		25.011	24.212	25.540	24.892	25.439	24.212	24.706	24.251	25.372	24.187	24.716	24.245	24.202	24.306	25.283	24.850	25.837	25.000	25.750	26.196	26.190	25.755	26.382	27.115					
28		28.490	27.275	27.711	26.456	29.187	27.451	28.602	27.325	29.373	27.292	27.304	28.036	26.736	28.106	28.006	28.844	28.523	28.877	28.509	28.919	28.979	29.817	29.314	30.035					
31.5		31.161	30.999	31.433	32.202	31.924	31.894	31.648	31.412	32.501	31.447	30.248	30.971	29.619	31.048	31.117	31.950	31.579	31.879	31.676	32.018	32.180	32.991	32.696	33.373					
35.5		34.177	35.312	34.291	34.940	35.013	36.593	35.144	36.366	36.092	36.406	35.514	34.311	34.776	34.397	34.708	35.500	35.088	35.294	35.351	35.575	35.894	36.636	36.371	37.223					
40		39.508	38.622	39.292	39.633	40.474	40.024	39.200	40.238	40.257	40.283	39.756	40.284	38.929	40.385	38.897	39.596	39.158	39.216	39.664	39.702	40.254	40.864	40.453	41.407					
45		43.745	42.360	43.221	43.236	44.816	43.897	43.210	44.683	45.147	44.733	43.090	45.096	42.194	45.208	42.642	44.375	43.936	43.765	43.904	44.546	45.699	45.828	45.245	46.054					
50		48.689	48.967	50.293	49.542	49.881	50.744	47.911	49.840	50.968	49.896	48.175	48.878	47.174	49.000	49.917	48.648	48.632	49.105	49.580	49.307	51.148	52.026	50.950	51.510					
56		54.532	54.220	56.033	54.496	55.866	56.187	56.566	54.938	57.365	55.957	54.229	54.647	53.102	54.783	55.870	56.948	54.920	54.353	55.660	55.683	57.688	58.230	57.856	58.005					
63		61.543	60.347	62.867	63.413	63.049	62.537	63.778	60.916	64.699	63.171	61.557	61.514	60.278	61.667	63.013	63.739	61.654	61.381	63.019	62.510	65.793	65.675	67.113	65.867					
71		69.742	67.589	71.139	70.651	70.787	70.041	71.414	71.919	73.789	71.100	67.713	69.826	66.306	70.000	68.162	71.888	69.806	68.908	73.410	70.776	69.795	74.903	74.750	76.406					
80		78.723	76.279	78.583	79.267	79.049	79.046	80.111	81.089	78.278	80.190	75.481	76.809	73.912	77.000	76.974	77.762	81.316	78.019	78.024	82.445	79.132	79.459	84.684	85.100	85.100				
90		86.806	86.440	89.061	89.696	89.050	88.748	85.146	90.798	88.750	91.457	85.046	85.620	83.279	85.833	88.439	87.816	86.427	90.882	85.226	87.627	85.076	90.089	91.045	96.410					
100		97.572	101.554	99.083	101.210	99.106	103.639	101.856	103.114	97.020	97.768	96.471	95.735	96.711	100.079	100.895	99.020	96.594	98.752	96.030	103.838	97.967	104.514	103.460						
112		107.590	115.256	112.294	115.290	111.645	112.450	108.257	118.308	110.000	113.186	110.901	110.833	111.176	115.862	114.174	109.386	110.670	109.4											

Kegeltandwielkasten
Precieze overbrengingsverhoudingen
Typen JRHB2-4
Bouwgrootte 4 - 28

Bevel gear units
Actual ratios
Types JRHB2-4
Sizes 4 - 28

Precieze overbrengingsverhoudingen i / Actual Ratios i																												
i_N	Tandwielkast grootte / Gear unit sizes																											
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	23	27	28			
5	4.936	5.006		4.865		5.002		4.897		4.967		4.963		4.880														
5.6	5.48	5.488		5.333		5.483		5.534		5.613		5.609	5.630	5.514														
6.3	6.296	6.386	6.205	6.206	6.135	6.381	6.271	6.296	6.226	6.386	6.156	6.340	6.362	6.234														
7.1	6.959	7.058	6.802	6.860	6.725	7.053	6.875	7.037	7.036	7.138	6.957	7.132	7.192	7.012	7.239													
8	7.549	7.657	7.915	7.880	7.825	8.101	8.000	7.994	8.005	8.108	7.915	8.101	8.090	7.965	8.143													
9	8.693	8.817	8.749	8.569	8.649	8.810	8.842	8.693	8.947	8.817	8.847	8.810	9.190	8.662	9.250													
10	9.872	10.108	9.490	9.823	9.935	10.099	10.157	9.965	10.164	10.108	10.049	10.099	9.993	9.930	10.059													
11.2	10.769	10.923	10.928	10.615	10.804	10.914	11.045	10.769	11.052	10.923	10.928	10.914	11.456	10.731	11.531													
12.5	12.034	12.703	12.528	12.433	12.385	12.554	12.662	12.334	12.670	12.482	12.528	12.172	12.380	12.770	12.462	12.062	12.256											
14	13.484	13.964	13.538	13.515	13.385	14.137	13.683	13.821	13.692	13.721	13.538	13.810	13.832	13.790	14.654	13.709	13.698	13.902	13.719									
16	15.601	15.835	15.826	16.275	15.773	15.952	15.693	15.522	15.888	16.354	15.552	15.215	15.665	16.226	16.014	15.192	15.640	15.436	15.538									
18	17.482	17.407	17.307	17.692	17.041	17.963	17.724	17.393	17.572	17.978	17.007	17.262	17.290	17.522	18.620	17.267	17.252	17.51	17.279									
20	19.614	19.645	19.729	19.948	20.648	20.259	19.940	19.744	19.995	20.276	20.376	19.379	19.581	19.762	20.348	19.607	19.698	19.883	19.57	20.285		20.27		20.764				
22.4	21.919	21.954	21.575	22.146	22.308	22.208	22.520	21.643	22.114	22.226	22.282	21.900	21.982	22.333	22.950	22.158	22.368	22.47	22.222	22.931	22.782	22.914	23.077	23.578	23.639			
25	25.38	25.421	24.349	25.446	25.152	25.843	25.400	25.185	25.103	25.864	25.131	24.916	24.842	25.409	25.936	25.048	25.278	25.4	25.113	25.794	25.753	25.775	26.087	26.522	26.843			
28	27.836	27.881	27.211	28.125	27.923	28.563	27.842	27.836	27.517	28.587	27.548	27.847	28.263	28.398	29.507	28.175	28.576	28.571	28.389	29.301	28.968	29.279	29.343	30.128	30.194			
31.5	30.196	30.245	31.508	30.509	32.084	30.985	32.400	31.975	32.021	32.838	32.057	31.634	31.588	32.259	32.979	32.005	32.143	32.456	31.933	31.863	32.907	31.839	33.333	32.762	34.3			
35.5	34.771	34.827	34.557	35.131	35.461	35.679	35.811	34.771	35.392	35.709	35.432	34.400	35.883	35.080	37.463	34.804	36.513	35.294	36.275	34.804	35.784	36.5	36.248	37.558	37.299			
40	39.487	39.551	37.486	39.896	38.468	40.902	38.846	39.861	40.654	40.936	40.700	39.435	39.021	40.215	40.738	39.899	39.706	40.461	39.446	39.899	39.216	39.444	41.554	40.588	42.759			
45	43.077	43.146	43.166	43.523	44.296	44.202	44.732	43.077	44.209	44.238	44.259	42.617	44.732	43.460	46.702	43.117	45.518	43.725	45.221	43.117	44.956	44.923	44.906	46.225	46.208			
50	49.06	49.139	49.021	49.568	50.304	50.341	51.280	49.060	50.681	50.383	50.737	48.536	48.341	49.496	50.469	49.106	49.190	49.798	48.869	49.106	48.583	50.501	51.143	51.965	52.626			
56	55.152	55.240	53.477	55.723	54.877	56.592	55.417	55.152	54.769	56.639	54.831	54.562	55.055	55.641	57.479	55.203	56.022	55.981	55.656	55.203	55.331	55.68	57.493	57.295	59.16			
63	60.808	60.906	60.904	61.438	62.499	62.396	63.114	60.808	62.376	62.448	62.446	60.158	61.892	61.348	64.616	60.865	62.978	61.722	62.567	60.865	62.201	63.45	63.39	65.29	65.228			
71	69.293	69.404	68.467	70.011	70.259	71.102	70.951	69.293	70.121	71.161	70.200	68.553	68.239	69.909	71.243	69.358	69.438	70.335	68.984	69.358	68.581	68.216	72.235	70.194	74.33			
80		77.598	75.489	79.267	77.465	79.497	78.228	80.949	77.313	82.118	77.400	78.131	77.761	76.506	81.184	79.977	79.127	77.639	78.61	79.208	78.15	82.094	78.551	82.334	79.766			
90		86.720	86.022	88.585	88.274	88.842	89.143	89.869	88.101	90.016	88.200	85.645	88.626	83.865	88.846	87.670	91.242	87.739	86.772	90.116	88.957	93.399	93.461	93.073	93.734			
100		100.413	96.178	102.572	99.945	102.869	99.667	103.259	102.921	104.750	101.780	99.664	97.150	97.593	97.391	102.020	100.017	99.821	98.061	100.718	101.207	104.387	106.331	104.692	105.96			
112		110.130	107.484	112.498	111.694	112.824	111.384	114.129	114.262	115.777	111.569	110.155	113.052	107.865	113.333	112.759	116.389	111.565	111.565	114.412	113.114	118.58	118.841	118.926	119.188			
125		119.466	124.455	122.035	129.330	122.389	128.971	123.804	131.287	125.592	129.831	126.535	124.952	123.904	125.263	129.526	128.641	126.733	124.69	124.416	128.494	128.949	134.999	129.325	135.393			
140		137.567	136.499	140.525	141.846	140.933	141.452	142.562	145.106	144.621	143.498	137.599	143.532	134.739	143.889	140.851	147.769	137.815	141.643	142.629	139.729	147.824	146.803	148.256	147.232			
160		156.225	148.071	159.585	153.871	160.047	153.443	161.897	157.408	165.791	155.663	157.741	156.082	154.462	156.471	161.470	160.690	157.989	154.029	154.135	160.183	159.75	168.292	160.217	168.784			
180		170.427	170.506	174.092	177.184	174.597	176.692	176.615	181.258	179.166	179.248	170.467	178.930	166.923	179.375	174.496	184.212	170.735	176.576	175.543	173.106	181.938	181.869	182.469	182.401			
200		194.098	193.631	198.272	201.215	198.847	200.656	201.145	205.841	204.050	205.487	194.143	193.365	190.107	193.846	198.732	199.073	194.448	190.821	197.34	197.148	204.528	207.129	205.126	207.734			
224		218.199	211.234	222.891	219.508	223.537	218.898	226.121	224.554	229.386	222.065	218.249	220.222	213.712	220.769	223.408	226.722	218.592	217.324	217.58	221.628	225.506	232.848	226.165	233.528			
250		240.578	240.572	245.752	249.995	246.464	249.300	249.313	255.742	252.913	252.907	240.634	247.566	235.631	248.182	246.322	254.874	241.641	244.309	247.94	244.359	256.972	256.73	257.722	257.48			
280		274.147	270.443	280.042	281.036	280.855	280.256	284.101	287.497	288.204	284.310	274.210	272.957	268.510	273.636	280.692	281.015	274.641	269.366	273.24	278.456	283.193	292.552	284.021	29			

8. Bouwvormen / Assemblies

Tandwielkasten

Bouwvormen

Typen: alle typen

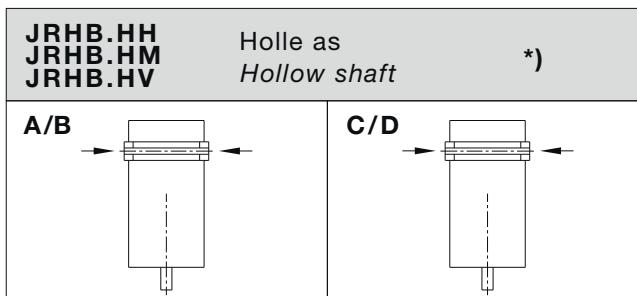
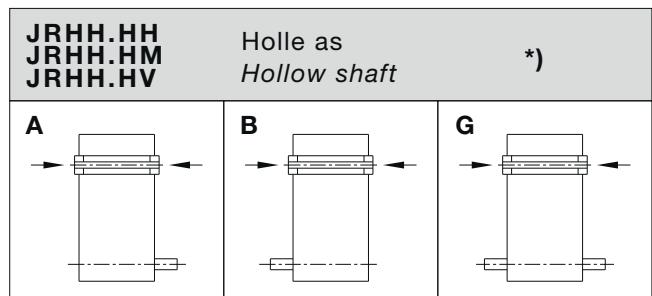
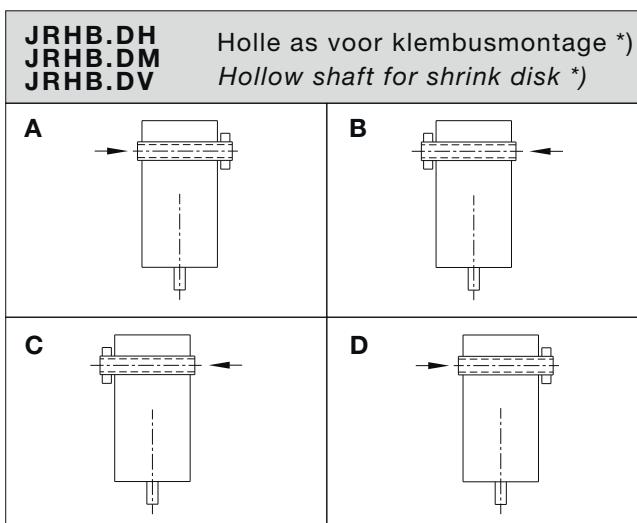
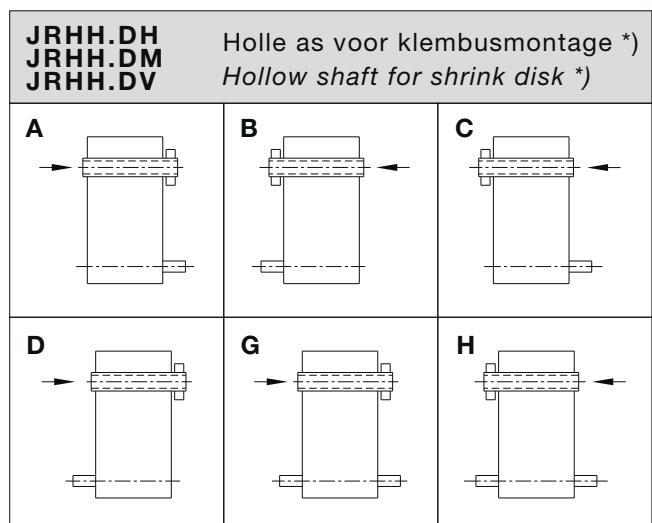
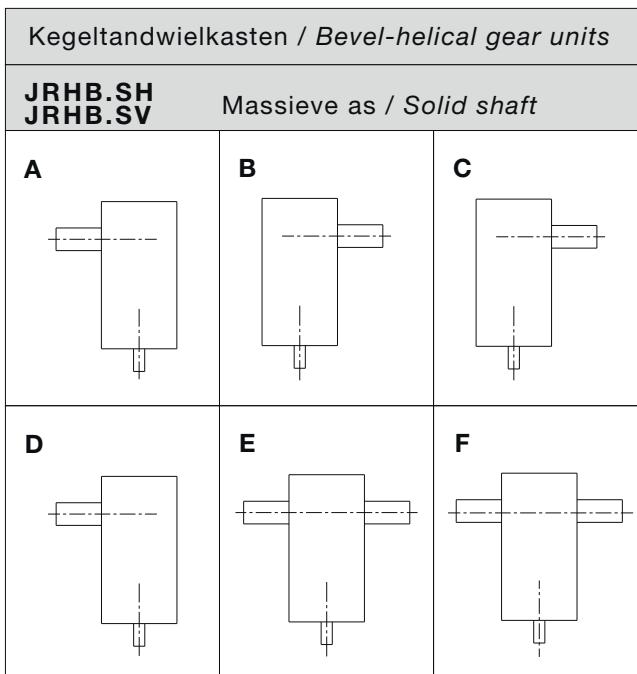
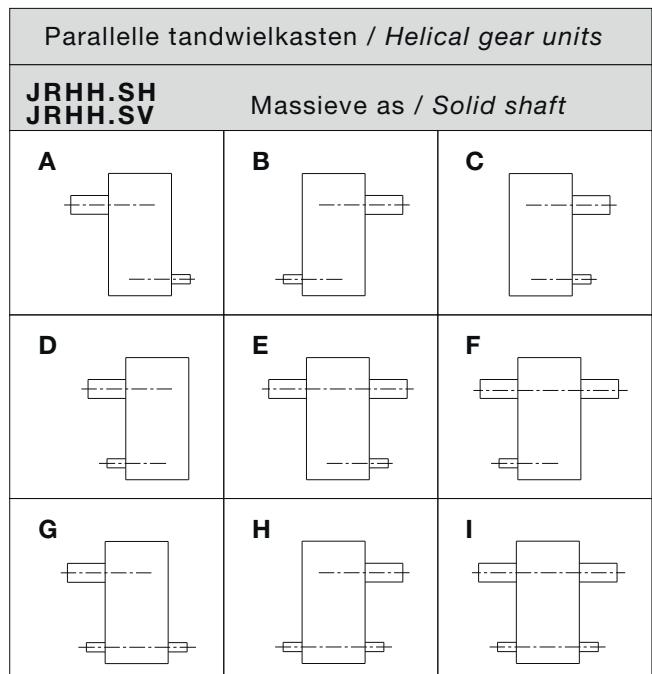
Bouwgrootte 3 - 28

Gear units

Assemblies

Types: all types

Sizes 3 - 28



*) De pijl geeft de richting aan waar het lastwerk具 dient te worden.

*) The arrow indicates the direction of insertion of the driven machine shaft.

9. Smering en koeling / Oil supply

Tandwielkasten

Eigen smering verticale opstelling

Typen: alle typen

Bouwgrootte 4 - 12

Gear units

Oil supply vertical mounting

Types: all types

Sizes 4 - 12

De uitvoeringen van oliesmering van verticaal opgestelde tandwielkasten kunnen afgelezen worden in tabel 1.
Oil supply variants for vertical gear units can be derived from table 1.

Tabel 1 / Table 1

1) Types	Grootte / Size	Dompelsmering <i>Dip lubrication</i>	Geforceerde smering, aangeflensde pomp <i>Forced lubrication, flanged-on pump</i>	Geforceerde smering, motorpomp <i>Forced lubrication, motor pump</i>
JRHH2.V	4...12 13...18	X -	X X	-
JRHH3.V	4...12 13...18	X -	X X	X X
JRHH4.V	7...12 13...18	X -	X -	X X
JRHB2.V	4...12 13...18	X -	X X	X X
JRHB3.V	4...12 13...18	X -	X X	X X
JRHB4.V	5...12 13...18	X -	X -	X X

X=Mogelijke uitvoeringen

1) Voor tandwielkasten met massieve as en retourleiding staan aangegeven op blz. 96, tabel 14.

Voorkeur smering:

tot en met bouwgrootte 6: dompelsmering
vanaf bouwgrootte 7: geforceerde smering

Opmerkingen bij smeermogelijkheden

Dompel smering:

Bij dompelsmering dienen alle te smeren delen in het oliebad te liggen waarbij een expansievat toegepast dient te worden.

Voor de selectiecriteria zie blz

Geforceerde smering:

Bij geforceerde smering worden alle delen die niet in het oliebad liggen gesmeerd door de aangeflensde pomp of pompmotor.

X=Possible variants

1) For possible variants for gear units with solid shaft and oil retaining tube, see page 96, table 14.

Preferred order:

up to size 6: dip lubrication from
size 7 up: forced lubrication

Notes on the individual oil supply variants

Dip lubrication:

in case of dip lubrication, all parts to be lubricated are lying in the oil.an oil compensating tank has been fitted for oil ex-pansion. criteria for selection,see page

Forced lubrication:

In case of forced lubrication, all parts which are not lying in oil are splash lubricated by means of a flanged-on pump or by a separate motor pump.

Tandwielkasten

Dompelsmering verticale opstelling

Typen: alle verticale typen

Bouwgrootte 4 - 12

Bij de bepaling van het toepassen van dompelsmering dienen de volgende criteria in acht te worden genomen:

- a) Maximum ingaand toerental n_1 , zie tabel 2.
- b) Toelaatbare olietemperatuur, zie tabel 3.

Gear units

Dip lubrication vertical mounting

Types: all vertical types

Sizes 4 - 12

For the design with dip lubrication the following criteria have to be observed:

- a) *Maximum input speed n_1 , see table 2.*
- b) *Permissible oil temperatures, see table 3.*

Tabel 2 / Table 2

Grootte Size	Type											
	JRHH2.V		JRHH3.V		JRHH4.V		JRHB2.V		JRHB3.V		JRHB4.V	
	iN	n _{1max}	iN	n _{1max}	iN	n _{1max}	iN	n _{1max}	iN	n _{1max}	iN	n _{1max}
4	6.3-10 11.2-12.5 14-22.4	1200 1500 1800	-		-		5-5.6 6.3-7.1 8-9 10-11.2	750 900 1000 1200	12.5-71	1800	-	
5	6.3-9 10-12.5 14-16 18-22.4	1000 1200 1500 1800	25-90	1800	-		6.3-7.1 8-9 10-11.2	750 900 1000	12.5-71	1800	80-315	1800
6	8-11.2 12.5-16 18-20 22.4-28	1000 1200 1500 1800	31.5-112	1800	-		9 10-11.2 12.5-14	750 900 1000	16-90	1800	100-400	1800
7	6.3-7.1 8-9 10-11.2 12.5-16 18-22.4	750 900 1000 1200 1500	25-90	1800	100-355	1800	9-10 11.2	750 900	12.5-25 28-71	1500 1800	80-315	1800
8	8-9 10-11.2 12.5-14 16-20 22.4-28	750 900 1000 1200 1500	31.5-112	1800	125-450	1800	11.2-12.5 14	750 900	16-31.5 35.5-90	1500 1800	100-400	1800
9	6.3-7.1 8-10 11.2-22.4	1200 1500 1800	25-90	1800	100-355	1800	5-5.6 6.3-7.1 8-10 11.2	900 1000 1200 1500	12.5-71	1800	80-315	1800
10	8-9 10-12.5 14-28	1200 1500 1800	31.5-112	1800	125-450	1800	6.3-7.1 8-9 10-12.5 14	900 1000 1200 1500	16-90	1800	100-400	1800
11	6.3-7.1 8-10 11.2-12.5 14-22.4	1000 1200 1500 1800	25-90	1800	100-355	1800	5.6-6.3 7.1-8 9-10 11.2	750 900 1000 1200	12.5-22.4 25-71	1500 1800	80-315	1800
12	8-9 10-12.5 14-16 18-28	1000 1200 1500 1800	31.5-112	1800	125-450	1800	7.1-8 9-10 11.2-12.5 14	750 900 1000 1200	16-28 31.5-90	1500 1800	100-400	1800

Geforceerde smering dient toegepast te worden als de waarde n1 en iN niet vermeld zijn in tabel 2

Gear units with n1 and iN which are not listed in table 2 must be designed for forced lubrication

Tabel 3 / Table 3

Viscositeit ISO-VG at 40 °C in mm ² /s(cst) Viscosity ISO-VG at 40°C in mm ² /s(cst)	Toelaatbare temp. [°C] voor dompelsmering / Permissible temp. in °C for dip lubrication	
	Minerale olie / Mineral oil	Synthetische olie / Synthetic oil
VG 220	-15	-25
VG 320	-12	-25
VG 460	-9	-25

De olie dient te worden verwarmd als deze onder de in de tabel genoemde waarde komt.

Bij dompelsmering mag de olietemperatuur niet de vloeigrens van de gebruikte oliesoort komen.

*If the temperatures are below the values as listed in the table, the oil must be heated.
In case of dip lubrication, the oil temperature must not blow the pour point of the selected oil.*

Parallelle tandwielkasten

Geforceerde smering verticale opstelling
Typen JRHH2-4
Bouwgroottes 5 - 18

Helical gear units

Forced lubrication vertical mounting
Types JRHH2-4
Sizes 5 - 18

Tabel 4 / Table 4

Viscositeit ISO-VG at 40 °C in mm ² /s(cst) Viscosity ISO-VG at 40 °C in mm ² /s(cst)	Maximaal toelaatbare temperatuur [°C] bij geforceerde smering Permissible temperature limit in °C for forced feed lubrication			
	Minerale olie / Mineral oil		Synthetische olie / Synthetic oil	
	Min	Max	Min	Max
VG 220	10	80	0	90
VG 320	15	90	5	100
VG 460	20	95	10	105

Geforceerde smering:

Bij geforceerde smering mag de viscositeit van 1800 cst tijdens bedrijf niet overschreden worden bij het opstarten. Tijdens bedrijf dient minimaal 25 cst gehouden te worden. Indien de temperatuur onder waarde genoemd in tabel 4 komt dan dient dompelsmerring te worden toegepast of de olie moet worden voorverwarmd.

*Forced lubrication:
In case of forced lubrication, the operating Viscosity 1800 cst must not be exceeded during starting. A minimum operating of 25cst must be sured. If the temperatures are below the values as listed in table 4, dip lubrication has to be provided or the oil must be heated.*

Tabel 5 / Table 5

Bepaling van aangeflensde pompen bij verticaal opgestelde parallelle tandwielkasten
Assignment of flanged-on pumps to vertical helical gear units

Type	n ₁ r/min	Tandwielkast grootte Gear unit size		Aangeflensde pomp grootte Flanged-on pump size	Tandwielkast grootte Gear unit size			Aangeflensde pomp grootte Flanged-on pump size
		5, 7, 9, 11	6, 8, 10, 12		13, 15, 17	14	16, 18	
JRHH2.V ¹⁾	750-1800	6.3-22.4	8-28		6.3-22.4	8-28	7.1-25	
JRHH3.V ¹⁾	1201-1800	25-35.5	31.5-45		22.4-35.5	28-45	25-40	
		40-71	50-90		40-71	50-90	45-80	
		80-90	100-112	*	80-90	100-112	90-100	*
	901-1200	25-50	31.5-63		22.4-25	28-31.5	25-28	
		56-90	71-112	*	28-45	35.5-56	31.5-50	
					50-90	63-112	56-100	*
JRHH4.V ¹⁾	720-900	25-35.5	31.5-45		22.4-35.5	28-45	25-40	
		40-90	50-112	*	40-90	50-112	45-100	*
	1201-1800	100-180	125-224					
		200-355	250-450	*				
		100-125	125-160					
	901-1200	140-355	180-450	*				
		750-900	100-355	125-450	*			

* Voorbenodigde motorpomp zie tabel 7 / Motor pump required see table 7

1) Bouwvorm B, D1) Design B, D

Parallelle tandwielkasten
Geforceerde smering verticale opstelling
Typen JRHH2-4
Bouwgrootte 5 - 18

Helical gear units
Forced lubrication vertical mounting
Types JRHH2-4
Sizes 5 - 18

Tabel 6 / Table 6 *Bepaling van aangeflensde pompen bij verticaal opgestelde parallelle tandwielkasten*
Assignment of flanged-on pumps to vertical helical gear units

Type	n, r/min	Tandwielkast grootte <i>Gear unit size</i>		Aangeflensde pomp grootte <i>Flanged-on pump size</i>	Tandwielkast grootte <i>Gear unit size</i>			Aangeflensde pomp grootte <i>Flanged-on pump size</i>
		5, 7, 9, 11	6, 8, 10, 12		13, 15, 17	14	16, 18	
		Overbrengingsverhouding <i>Ratio</i> i _N			Overbrengingsverhouding / Ratio i _N			
JRHH2.V ¹⁾	750-1800	6.3-22.4	8-28		6.3-22.4	8-28	7.1-25	
JRHH3.V ¹⁾	1201-1800	25-40	31.5-50		22.4-50	28-63	25-56	
		45-90	56-112		56-90	71-112	63-90	
							100	*
	901-1200	25-56	31.5-71		22.4-31.5	28-40	25-35.5	
		63-90	80-112	*	35.5-56	45-71	40-63	
					63-90	80-112	71-100	*
JRHH4.V ¹⁾	750-900	25-45	31.5-56		22.4-25	28-31.5	25-28	
		50-90	63-112	*	28-45	35.5-56	31.5-50	
					50-90	63-112	56-100	*
	1201-1800	100-224	125-280		100-355	125-450	112-400	*
		250-355	315-450	*				
		100-140	125-180					
	901-1200	160-355	200-450	*				
		100-112	125-140					
		125-355	160-450	*				

* Voorbenodigde motorpomp zie tabel 7 / Motor pump required see table 7

1) Bouwworm A, C1) Design A, C

Tabel 7 / Table 7 <i>Bepaling van aangeflensde pompen bij verticaal opgestelde parallelle tandwielkasten</i> <i>Assignment of flanged-on pumps to vertical helical gear units</i>		
Type	Grootte / Size	Pomp / Pump
JRHH2.V	5...18	1)
JRHH3.V		SF 2/8
JRHH4.V	7...12	SF 2/13
	13...18	

1) Alleen aangeflensde pomp

1) Flanged-on pump only

Kegeltandwielkasten
Geforceerde smering verticale opstelling
Typen JRHB2-4
Bouwgrootte 5 - 18

Bevel gear units
Forced lubrication vertical mounting
Types JRHB2-4
Sizes 5 - 18

Tabel 8 / Table 8					
Viscositeit ISO-VG at 40 °C in mm ² /s(cst) Viscosity ISO-VG at 40 °C in mm ² /s(cst)	Maximaal toelaatbare temperatuur [°C] bij geforceerde smering Permissible temperature limit in °C for forced feed lubrication				
	Minerale olie / Mineral oil		Synthetische olie / Synthetic oil		
	Min	Max	Min	Max	
VG 220	10	80	0	90	
VG 320	15	90	5	100	
VG 460	20	95	10	105	

Geforceerde smering:

Bij geforceerde smering mag de viscositeit van 1800 cst tijdens bedrijf niet overschreden worden bij het opstarten. Tijdens bedrijf dient minimaal 25 cst aangehouden te worden. Indien de temperatuur onder waarde genoemd in tabel 4 komt dan dient dompelssmering te worden toegepast of de olie moet worden voorverwarmd.

Forced lubrication:

In case of forced lubrication, the operating Viscosity 1800 cst must not be exceeded during starting. A minimum operating of 25cst must be sure. If the temperatures are below the values as listed in table 4, dip lubrication has to be provided or the oil must be heated.

Tabel 5 / Table 5								
Bepaling van aangeflensde pompen bij verticaal opgestelde parallelle tandwielkasten Assignment of flanged-on pumps to vertical helical gear units								
Type	n ₁ r/min	Tandwielkast grootte Gear unit size		Aangeflensde pomp grootte Flanged-on pump size	Tandwielkast grootte Gear unit size			Aangeflensde pomp grootte Flanged-on pump size
		5, 7, 9, 11	6, 8, 10, 12		13, 15, 17	14	16, 18	
		Overbrengingsverhouding Ratio i _N			Overbrengingsverhouding / Ratio i _N			
JRHB2.V ¹⁾	1201-1800	5-6.3	6.3-8		5-8	6.3-10	5.6-9	
		7.1-11.2	9-14		9-11.2	11.2-14	10-12.5	
	901-1200	5-8	6.3-10		5	6.3	5.6	
		9-11.2	11.2-14		5.6-11.2	7.1-14	6.3-12.5	
	750-900	5-6.3	6.3-8		5-10	6.3-12.5	5.6-11.2	
		7.1-10	9-12.5		11.2	14	12.5	*
		11.2	14	*				
JRHB3.V ²⁾	1201-1800	12.5-35.5	16-45		12.5-35.5	16-45	14-40	
		40-71	50-90		40-71	50-90	45-80	
	901-1200	12.5-25	16-31.5		12.5-25	16-31.5	14-28	
		28-50	35.5-63		28-50	35.5-63	31.5-56	
	750-900	56-71	71-90	*	56-71	71-90	63-80	*
		12.5-35.5	16-45		12.5-35.5	16-45	14-40	
		40-71	50-90	*	40-71	50-90	45-80	*
JRHB4.V ¹⁾	1201-1800	80-125	100-160		80-135	100-400	90-355	*
		140-250	180-315					
		280-315	355-400	*				
	901-1200	80-180	100-224					
		200-315	250-400	*				
	750-900	80-125	100-160					
		140-315	180-400	*				

* Voorbenodigde motorpomp zie tabel 7 / Motor pump required see table 11

1) Bouwvorm A, B 1) Design A, B

2) Bouwvorm B, D2) Design B, D

Kegeltandwielkasten

Geforceerde smering verticale opstelling

Typen JRHB2-4

Bouwgrootte 5 - 18

Bevel gear units

Forced lubrication vertical mounting

Types JRHB2-4

Sizes 5 - 18

Tabel 10 / Table 10

Bepaling van aangeflensde pompen bij verticaal opgestelde kegeltandwielkasten
Assignment of flanged-on pumps to vertical bevel-helical gear units

Type	n ₁ r/min	Tandwielkast grootte Gear unit size		Aangeflensde pomp grootte <i>Flanged-on pump size</i>	Tandwielkast grootte Gear unit size			Aangeflensde pomp grootte <i>Flanged-on pump size</i>
		5, 7, 9, 11	6, 8, 10, 12		13, 15, 17	14	16, 18	
		Overbrengingsverhouding Ratio i _N			Overbrengingsverhouding / Ratio i _N			
JRHB2.V ¹⁾	1201-1800	5-6.3	6.3-8		5-6.3	6.3-8	5.6-7.1	
		7.1-11.2	9-14		7.1-11.2	9-14	8-12.5	
	901-1200	5-8	6.3-10		5-10	6.3-12.5	5.6-11.2	
		9-11.2	11.2-14		11.2	14	12.5	*
	750-900	5-6.3	6.3-8		5-7.1	6.3-9	5.6-8	
		7.1-10	9-12.5		8-11.2	10-14	9-12.5	*
		11.2	14	*				
JRHB3.V ²⁾	1201-1800	12.5-35.5	16-45		12.5-22.4	16-28	14-25	
		40-71	50-90		25-50	31.5-63	28-56	
					56-71	71-90	63-80	
	901-1200	12.5-25	16-31.5		12.5-35.5	16-45	14-40	
		28-50	35.5-63		40-56	50-71	45-63	
		56-71	71-90	*	63-71	80-90	71-80	*
	750-900	12.5-35.5	16-45		12.5-25	16-31.5	14-28	
		40-71	50-90	*	28-40	35.5-50	31.5-45	
					45-71	56-90	50-80	*
JRHB4.V ¹⁾	1201-1800	80-180	100-224		80-315	100-400	90-355	*
		200-315	250-400	*				
	901-1200	80-125	100-160					
		140-315	180-400	*				
	750-900	80-90	100-112					
		100-315	125-400	*				

* Voorbenodigde motorpomp zie tabel 7 / Motor pump required see table 11

1) Bouwvorm C, D) Design C, D

2) Bouwvorm A, B) Design A, B

Tabel 11 / Table 11

Bepaling van motorpompen bij verticaal opgestelde kegeltandwielkasten
Assignment of motor pumps to vertical bevel-helical gear units

Type	Grootte / Size	Pomp / Pump
JRHB2.V	5...12	SF 2/5
	13...18	
JRHB3.V	5...18	SF 2/8
	5...12	
JRHB4.V	13...18	SF 2/13

Tandwielkasten

Geforceerde smering door pompmotor

Typen JRHH3-4 / JRHB2-4 (verticaal)

Bouwgroottes 5 - 18

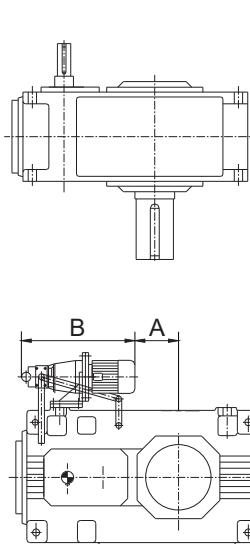
Gear units

Forced lubrication by pump motor

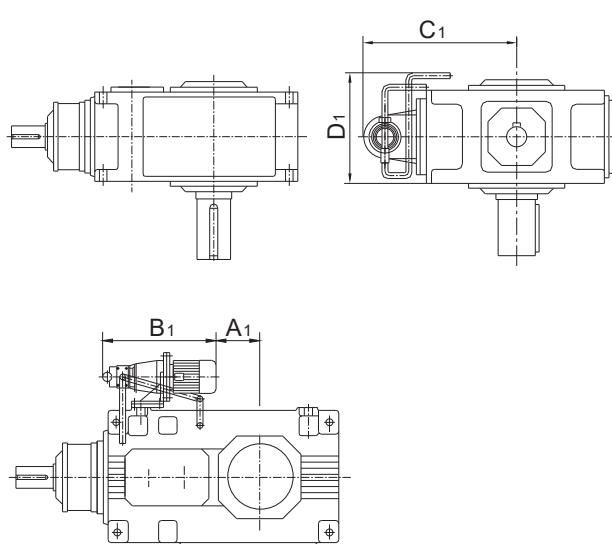
Types JRHH3-4 / JRHB2-4 (vertical)

Sizes 5 - 18

JRHH3.V,JRHH4.V



JRHB2.V,JRHB3.V,JRHB4.V



Tabel 12 / Table 12 Montage afmetingen / Mounting dimensions [mm]

Type	Grootte Size	A	B	C	D
JRHH3.V	5/6	-25/10	560	495	350
	7/8	55/100	595	545	425
	9/10	140/190	615	585	495
	11/12	375/445	535	645	560
	13/14	155/225	875	695	680
	15/16	275/320	960	735	745
	17/18	250/310	1035	795	810
JRHH4.V	5/6	-	-	-	
	7/8	55/100	590	545	425
	9/10	140/190	630	585	495
	11/12	375/445	560	645	560
	13/14	135/205	910	695	665
	15/16	255/300	995	735	745
	17/18	230/280	1070	795	810

Tabel 13 / Table 13 Montage afmetingen / Mounting dimensions [mm]

Type	Grootte Size	A ₁	B ₁	C ₁	D ₁
JRHB2.V	5/6	-160/-120	475	495	450
	7/8	5/50	475	545	540
	9/10	60/110	475	585	560
	11/12	150/220	475	645	645
	13/14	-70/0	530	690	810
	15/16	15/60	530	730	920
	17/18	-5/55	530	790	1025
JRHB3.V	5/6	-85/-50	475	495	375
	7/8	-5/40	475	545	435
	9/10	65/115	475	585	505
	11/12	280/350	475	645	565
	13/14	90/160	530	690	680
	15/16	175/220	530	730	755
	17/18	220/280	530	790	815
JRHB4.V	5/6	-35/0	475	495	360
	7/8	55/100	475	545	425
	9/10	140/190	475	585	495
	11/12	375/445	475	645	560
	13/14	135/205	530	695	665
	15/16	255/300	530	735	745
	17/18	230/290	530	795	810

Tandwielkasten

Smering met massieve as een kering
Typen JRHH2-3 / JRHB2-4 (verticaal)
Bouwgrootte 5 - 18

Gear units

Oil supply with solid shaft and oil retaining
Types JRHH2-3 / JRHB2-4 (vertical)
Sizes 5 - 18

Soorten oliesmering / Possible oil supply variants

Type	Grootte / Size	Bouwvorm / Design	
		B	C
JRHH2SV	5-6	O ¹⁾	-
	7-12	O ²⁾	-
	13-18	O ³⁾	-
JRHH3SV	5-6	O	-
	7-12	O	-
	13-18	O	-
JRHB2SV	5-6	-	O
	7-12	-	O
	13-18	-	O
JRHB3SV	5-6	-	O
	7-12	-	O
	13-18	-	O
JRHB4SV	5-6	-	O
	7-12	-	O
	13-18	-	O

- = Bouwvorm niet mogelijk / Design impossible

O = Geforceerde smering mogelijk / Forced lubrication possible

- 1) Voor bouwgrootte 5 alleen mogelijk tot $i \leq 16$
 - 2) Voor bouwgrootte 7 alleen mogelijk tot $i \leq 16$ Voor bouwgrootte 11 alleen mogelijk tot $i \leq 18$
 - 3) Voor bouwgrootte 13 alleen mogelijk tot $i \leq 18$ Voor bouwgrootte 17 alleen mogelijk tot $i \leq 16$
- 1) For size 5 only possible up to $i \leq 16$
 - 2) For size 7 only possible up to $i \leq 16$

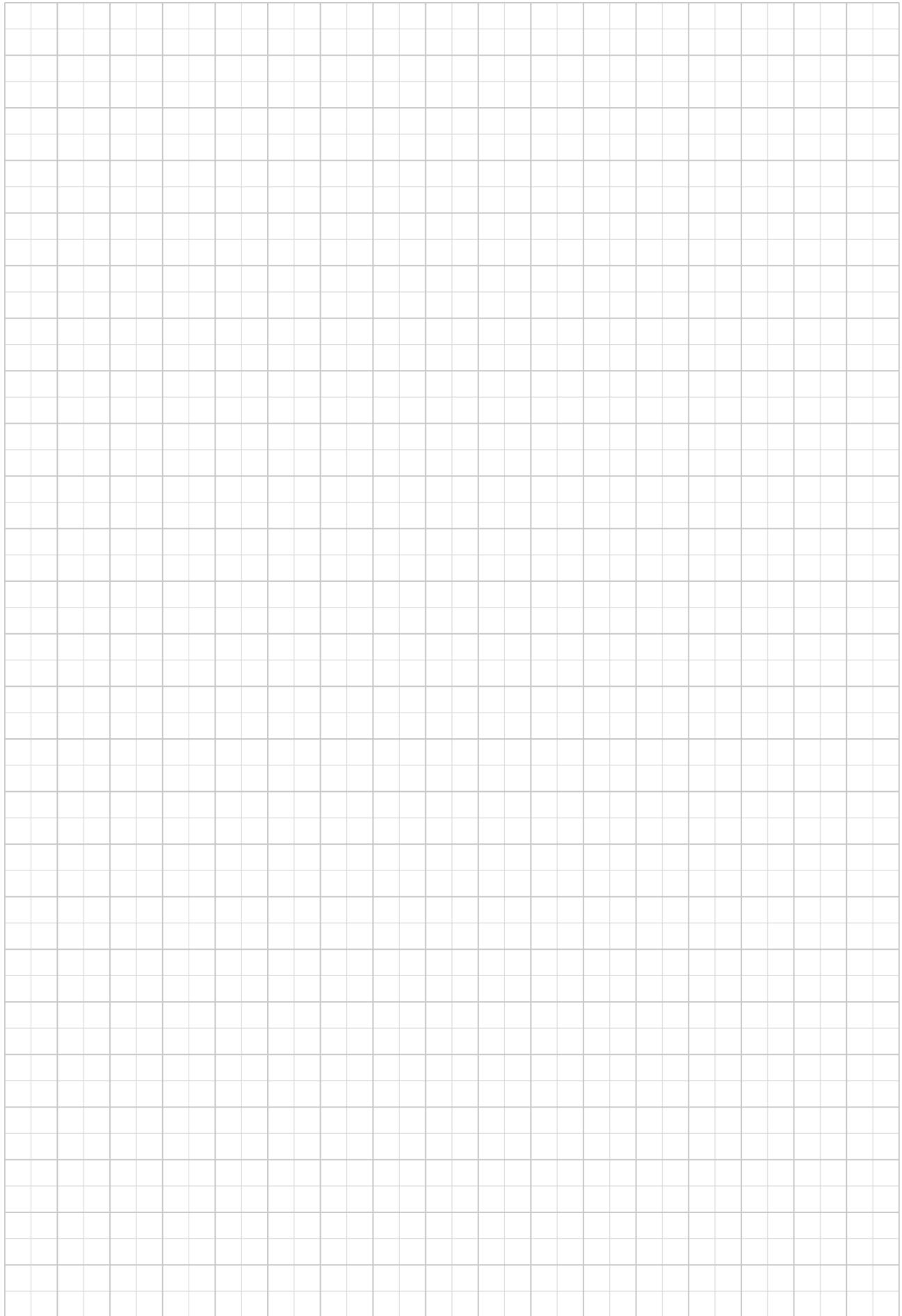
For size 11 only possible up to $i \leq 18$

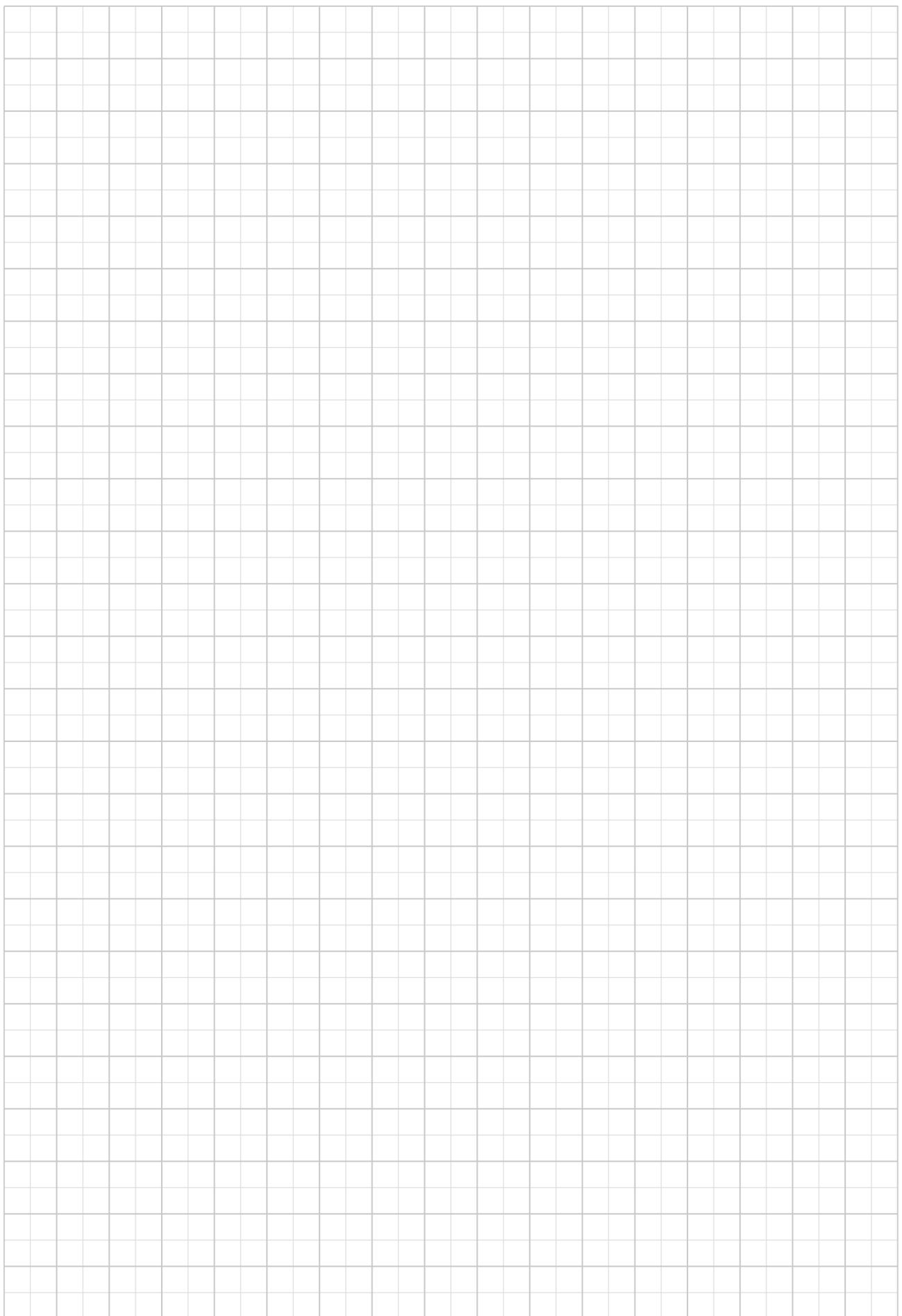
- 3) For size 13 only possible up to $i \leq 18$
- For size 17 only possible up to $i \leq 16$

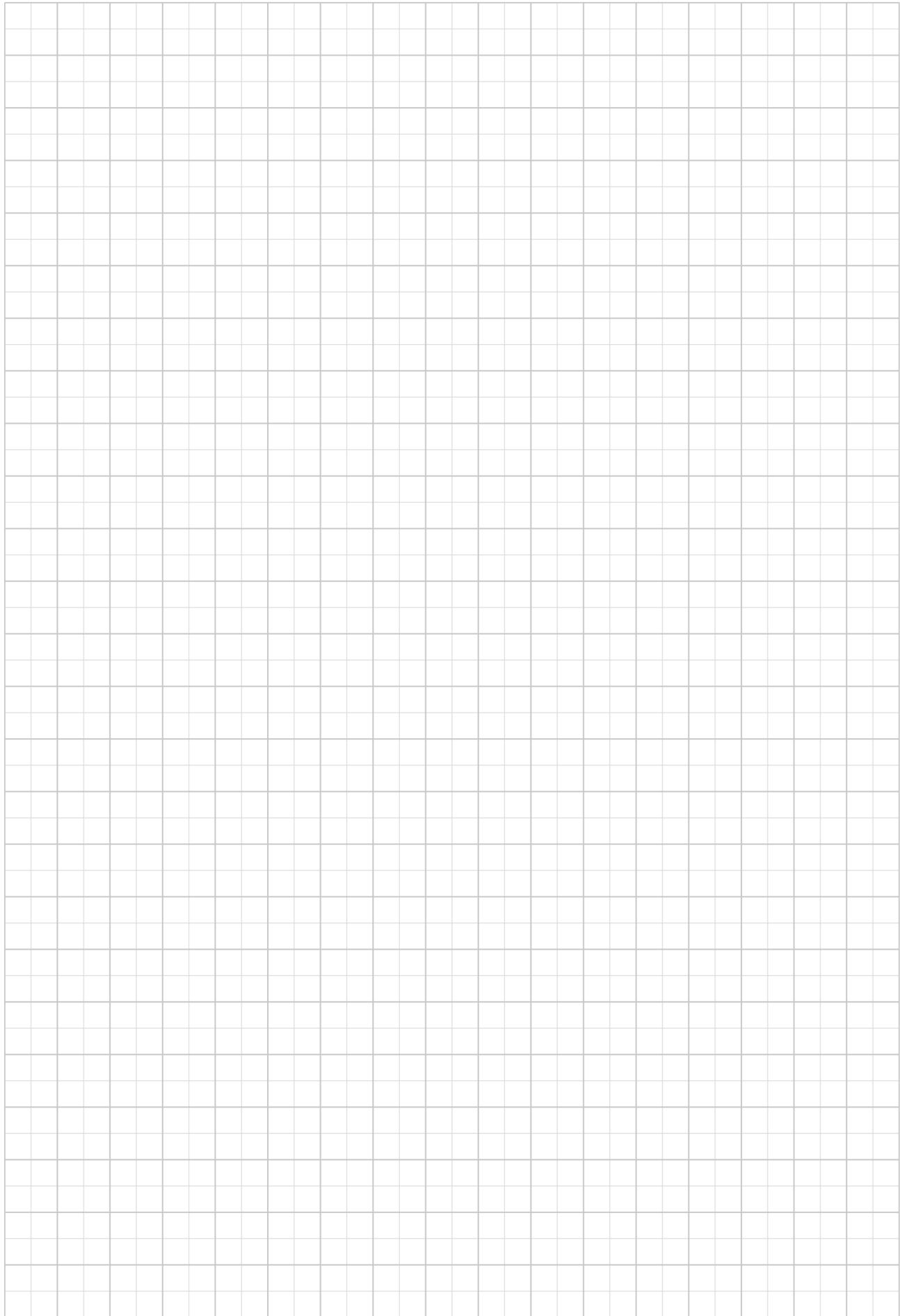
Tandwielkasten
Selectie van olietypen

Gear units
Selection of oil types

Olie Oil	Viscositeit ISO-VG bij 40 °C in mm 2/s standaard DIN15191 Viscosity ISO-VG at 40 °C in mm 2/s standard DIN15191	Voorbeeld olie selectie / Oil selection example					
			Mobil				
Synthe- tische olie Synthetic oil	VG680	TOTAL CARTER SH680	GLYGOYLE HE 680	SHELL OMALA HD680			
	VG460	TOTAL CARTER SH460	GLYGOYLE HE 460	SHELL OMALA HD460	ENERSYN SG-XP460		
	VG320	TOTAL CARTER SH320	GLYGOYLE HE320	SHELL OMALA HD320			
	VG220	TOTAL CARTER SH220	GLYGOYLE 30	SHELL OMALA HD220	ENERSYN SG-XP220		
	VG150		GLYGOYLE 22				
	VG100						
Minerale olie Mineral oil	VG680	TOTAL CARTER EP680	MOBIL GEAR 636	SHELL OMALA 680	ENERGOL GR-XF680	CKD680	CKD680
	VG460	TOTAL CARTER EP460	MOBIL GEAR 634	SHELL OMALA 460	ENERGOL GR-XF460	CKD460	CKD460
	VG320	TOTAL CARTER EP320	MOBIL GEAR 632	SHELL OMALA 320	ENERGOL GR-XF320	CKD320	CKD320
	VG220	TOTAL CARTER EP220	MOBIL GEAR 630	SHELL OMALA 220	ENERGOL GR-XF220	CKD220	CKD220
	VG150		MOBIL GEAR 629				
	VG100						







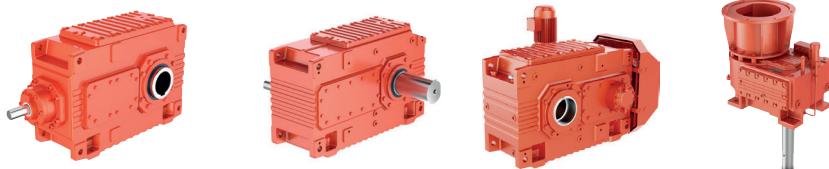
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