

**RIGHTANGLE
WORM GEARBOXES**

The units from 030 to 085 are supplied with synthetic oil, providing "long life" lubrication. For mounting position V5 - V6 please contact us.

The unit 110 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.

The table hereafter must be referred to as for the mounting position pattern and the corresponding oil plugs, if applicable, and related lubricant quantity.

These quantity are only indicative; to ensure correct filling, always refer to the centreline of the sight glass. In some cases, discrepancies, occasionally also substantial, versus the oil quantities listed in the chart may be noticed.

**RIGHTANGLE
RIDUTTORI A VITE SENZA FINE**

I riduttori dal 030 al 085 sono forniti con lubrificazione a vita con olio sintetico . Per posizioni V5 - V6 contattare il nostro servizio tecnico.

Il riduttore 110 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.

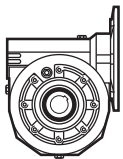
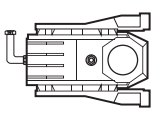
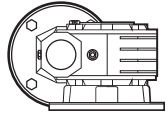
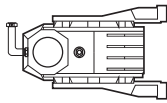
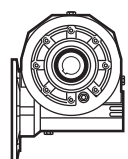
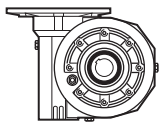
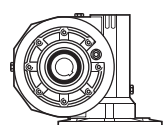
Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.

Nelle tabelle sottostanti vengono rappresentate le posizioni di montaggio, la disposizione dei tappi olio e le relative quantità.

Le quantità di lubrificante sono indicative; per avere il corretto quantitativo di lubrificante si dovrà dare attinenza esclusivamente alla mezzeria del tappo livello o allo sfioramento del foro del tappo, quando presenti.

Tenendo in considerazione quanto appena sostenuto la quantità di lubrificante indicata in tabella può presentare delle differenze, occasionalmente anche rilevanti.

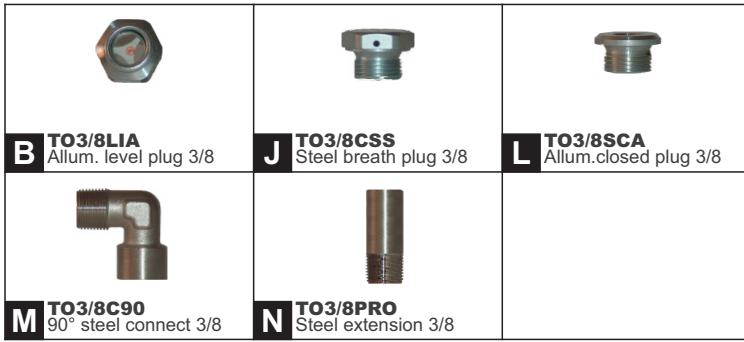
	AGIP Tellium VSF 320			SHELL Omala S4 WE 320		
030÷085	030	045	050	063	63A	085
Q.ty	0.03 Lt	0.09 Lt	0.14 Lt	0.40 Lt	0.40 Lt	1.2 Lt

110	AGIP Blasias 460					
B3 ≅ Lt 1.90 oil	B6 ≅ Lt 1.35 oil (PB)	B7 ≅ Lt 1.35 oil (FB - FC - FL)	B7 ≅ Lt 1.35 oil (PA)	B8 ≅ Lt 2.00 oil	V5 ≅ Lt 2.00 oil	V6 ≅ Lt 2.00 oil
						

OIL PLUG POSITIONS - TYPES / POSIZIONE TAPPI OLIO - TIPI

data 28/06/18
LUB_VSF_01

□ These plugs are on the back side. ▼ Filling & Breather ▼ Filling closed △ Emptying ● Level



SYNTHETIC OIL	
Code	Description
LUOTVSF320 (Standard)	Synthetic oil 'Telium VSF320'
	Synthetic oil 'Omala S4 WE320'
LUOBLAS150 (Low temperature)	Synthetic oil 'Blasia S 150'
	Synthetic oil 'Omala S4 WE150'

MINERAL OIL	
Code	Description
LUOBLAM460	Mineral oil 'Blasia 460'
	Mineral oil 'Omala S2 G 460'

Standard

Type	030	045	050	063	63A	085	110
Oil q.ty (Lt.)	0.03	0.09	0.14	0.40	0.40	1.20	1.90
Std. oil plugs ①	-	-	-	-	-	-	-
On request	①	-	-	-	-	J	J
	②	-	-	-	-	B	B
	③	-	-	L	-	L	L
	④	-	-	-	-	L	L

B3

Type	030	045	050	063	63A	085	110	PA		PB	
								085	110	085	110
Oil q.ty (Lt.)	0.03	0.09	0.14	0.40	0.40	1.20	1.35	1.20	1.35	1.20	1.35
Std. oil plugs ①	-	-	-	-	-	-	-	-	-	-	-
On request	①	-	-	-	-	L	L	M+N+J	L	L	L
	②	-	-	-	-	B	B	B	B	B	B
	③	-	-	L	-	L	L	L	M+N+J	L	L
	④	-	-	-	-	J	J	L	L	L	L

B7

On request / A richiesta

Type	030	045	050	063	63A	085	110	PA		PB	
								085	110	085	110
Oil q.ty (Lt.)	0.03	0.09	0.14	0.40	0.40	1.20	1.35	1.20	1.35	1.20	1.35
Std. oil plugs ①	-	-	-	-	-	-	-	-	-	-	-
On request	①	-	-	-	-	L	L	M+N+J	L	L	L
	②	-	-	-	-	B	B	B	B	B	B
	③	-	-	L	-	M+N+J	M+N+J	L	M+N+J	L	L
	④	-	-	-	-	L	L	L	L	L	L

B6

Type	030	045	050	063	63A	085	110
Oil q.ty (Lt.)	0.03	0.09	0.14	0.40	0.40	1.20	2.00
Std. oil plugs ①	-	-	-	-	-	-	-
On request	①	-	-	-	-	L	L
	②	-	-	-	-	B	B
	③	-	-	L	-	J	J
	④	-	-	-	-	L	L

B8

Type	030	045	050	063	63A	085	110
Oil q.ty (Lt.)	0.03	0.09	0.14	0.40	0.40	1.20	2.00
Std. oil plugs ①	-	-	-	-	-	-	-
On request	①	-	-	-	-	J	J
	②	-	-	-	-	L	L
	③	-	-	L	-	B	B
	④	-	-	-	-	L	L

V5

Type	030	045	050	063	63A	085	110
Oil q.ty (Lt.)	0.03	0.09	0.14	0.40	0.40	1.20	2.00
Std. oil plugs ①	-	-	-	-	-	-	-
On request	①	-	-	-	-	L	L
	②	-	-	-	-	J	J
	③	-	-	L	-	B	B
	④	-	-	-	-	L	L

V6

**RIGHTANGLE
HELICAL WORMBOXES**

The units from P45 to P85 are supplied with synthetic oil, providing "long life" lubrication. For mounting position V5 - V6 please contact us.

P45 and P50 gearboxes are supplied only with common lubrication.

The unit 110 (P10) is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.

The table hereafter must be referred to as for the mounting position pattern and the corresponding oil plugs, if applicable, and related lubricant quantity.

These quantity are only indicative; to ensure correct filling, always refer to the centreline of the sight glass. In some cases, discrepancies, occasionally also substantial, versus the oil quantities listed in the chart may be noticed.

**RIGHTANGLE
RIDUTTORI CON PRECOPPIA**

I riduttori dal P45 al P85 sono forniti con lubrificazione a vita ad olio sintetico. Per posizioni V5 - V6 contattare il nostro servizio tecnico.

I riduttori P45 e P50 sono forniti soltanto con lubrificazione comune.


Il riduttore 110 (P10) è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti.

Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.

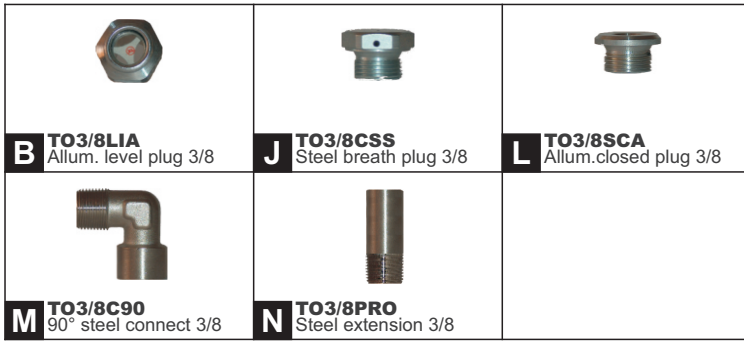
Nelle tabelle sottostanti vengono rappresentate le posizioni di montaggio, la disposizione dei tappi olio e le relative quantità.

Le quantità di lubrificante sono indicative; per avere il corretto quantitativo di lubrificante si dovrà dare attinenza esclusivamente alla mezzeria del tappo livello o allo sfioramento del foro del tappo, quando presenti.

Tenendo in considerazione quanto appena sostenuto la quantità di lubrificante indicata in tabella può presentare delle differenze, occasionalmente anche rilevanti.

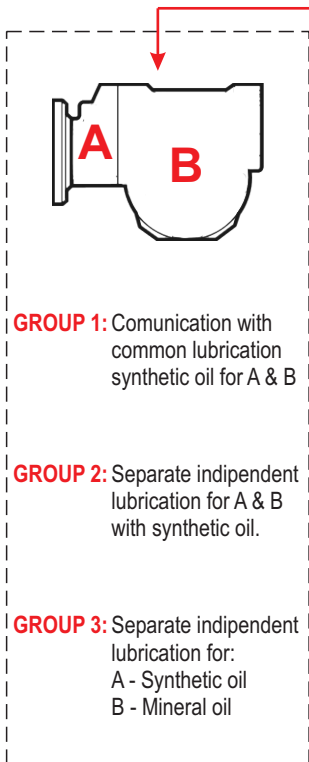
	P45		P50		P63		P6A		P85		P10	
	A	B	A	B	A	B	A	B	A	B	A	B
Separate lubrication Q.tà/Q.ty B3-V5-V6	-	-	-	-	0.40 Lt	0.08 Lt	0.40 Lt	0.08 Lt	1.20 Lt	0.14 Lt	2.0Lt	0.14 Lt
Common lubrication Q.tà/Q.ty B6-B7-B8	-	-	-	-	0.38 Lt		0.38 Lt		0.90 Lt		1.9Lt	-
Common lubrication for all position	0.17 Lt		0.26 Lt		-		-		-		-	

□ These plugs are on the back side. ▼ Filling & Breather ▼ Filling closed △ Emptying ● Level



SYNTHETIC OIL	
Code	Description
LUOTVSF320 (Standard)	Synthetic oil 'Telium VSF320'
	Synthetic oil 'Omala S4 WE320'
LUOBLAS150 (Low temperature)	Synthetic oil 'Blasia S 150'
	Synthetic oil 'Omala S4 WE150'

MINERAL OIL	
Code	Description
LUOBLAM460	Mineral oil 'Blasia 460'
	Mineral oil 'Omala S2 G 460'



Type	GROUP 1		GROUP 2			GROUP 3
	P45	P50	P63	P6A	P85	P10
Standard B3	Oil q.ty (Lt.) B 0.17	Oil q.ty (Lt.) A 0.26	0.40	0.40	1.20	1.90
	0.08	0.08	0.14	0.14	-	-
Std. oil plugs	①	-	-	-	-	-
On request	①	-	-	-	J	J
	②	-	-	-	B	B
	③	L	L	L	L	L
	④	-	-	-	L	L
B7	Oil q.ty (Lt.) B 0.17	Oil q.ty (Lt.) A 0.26	0.38	0.38	0.90	1.50
	-	-	-	-	-	0.14
Std. oil plugs	①	-	-	-	-	-
On request	①	-	-	-	L	L
	②	-	-	-	B	B
	③	L	L	L	L	L
	④	-	-	-	J	J
B6	Oil q.ty (Lt.) B 0.17	Oil q.ty (Lt.) A 0.26	0.38	0.38	0.90	1.50
	-	-	-	-	-	0.14
Std. oil plugs	①	-	-	-	-	-
On request	①	-	-	-	L	L
	②	-	-	-	B	B
	③	L	L	L	M+N+J	M+N+J
	④	-	-	-	L	L
B8	Oil q.ty (Lt.) B 0.17	Oil q.ty (Lt.) A 0.26	0.38	0.38	0.90	2.00
	-	-	-	-	-	0.14
Std. oil plugs	①	-	-	-	-	-
On request	①	-	-	-	L	L
	②	-	-	-	B	B
	③	L	L	L	J	J
	④	-	-	-	L	L
V5	Oil q.ty (Lt.) B 0.17	Oil q.ty (Lt.) A 0.26	0.40	0.40	1.20	2.00
	0.08	0.08	0.14	0.14	-	0.14
Std. oil plugs	①	-	-	-	-	-
On request	①	-	-	-	J	J
	②	-	-	-	L	L
	③	L	L	L	B	B
	④	-	-	-	L	L
V6	Oil q.ty (Lt.) B 0.17	Oil q.ty (Lt.) A 0.26	0.40	0.40	1.20	2.00
	0.08	0.08	0.14	0.14	-	0.14
Std. oil plugs	①	-	-	-	-	-
On request	①	-	-	-	L	L
	②	-	-	-	J	J
	③	L	L	L	B	B
	④	-	-	-	L	L

On request / A richiesta

**RIGHTANGLE
DOUBLE WORMBOXES VSF**

The units from 303 to 854 are supplied with synthetic oil, providing "long life" lubrication. For mounting position V5 - V6 please contact us.

The unit 115 (110+050) , 110 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.

The table hereafter must be referred to as for the mounting position pattern and the corresponding oil plugs, if applicable, and related lubricant quantity.

These quantity are only indicative; to ensure correct filling, always refer to the centreline of the sight glass. In some cases, discrepancies, occasionally also substantial, versus the oil quantities listed in the chart may be noticed.

**RIGHTANGLE
RIDUTTORI COMBINATI VSF**

I riduttori dal 303 al 854 sono forniti con lubrificazione a vita ad olio sintetico . Per posizioni V5 - V6 contattare il nostro servizio tecnico.

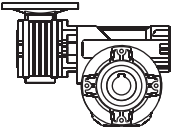
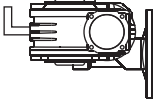
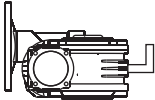
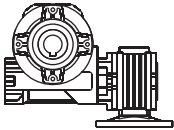
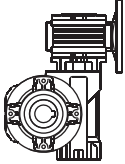
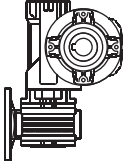
Il riduttore 115 (110+050) , 110 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.

Nelle tabelle sottostanti vengono rappresentate le posizioni di montaggio, la disposizione dei tappi olio e le relative quantità.

Le quantità di lubrificante sono indicative; per avere il corretto quantitativo di lubrificante si dovrà dare attinenza esclusivamente alla mezzeria del tappo livello o allo sfioramento del foro del tappo, quando presenti.


Tenendo in considerazione quanto appena sostenuto la quantità di lubrificante indicata in tabella può presentare delle differenze, occasionalmente anche rilevanti.

	AGIP Tellium VSF 320			SHELL Omala S4 WE 320		
453+854	303	453	503	633-6A3	634-6A4	854
	030+030	045+030	050+030	063 / 63A+030	063 / 63A+045	085+045
Q.tà/Q.ty	0.03 / 0.03 Lt	0.09 / 0.03 Lt	0.14 / 0.03 Lt	0.40 / 0.03 Lt	0.40 / 0.09 Lt	1.2 / 0.09 Lt


115	AGIP Blasias 460					
B3 1.9 / 0.14 Lt	B6 1.5 / 0.14 Lt	B7 1.5 / 0.14 Lt	B8 2.0 / 0.14 Lt	V5 2.0 / 0.14 Lt	V6 2.0 / 0.14 Lt	
						

MOUNTING POSITIONS / ESECUZIONI DI MONTAGGIO

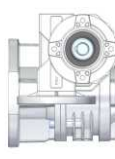
FB

P1	B5					B14								
	56	63	71	80	90	100	112	56	63	71	80	90	100	112
	303	•									•			
	453	•									•			
	503	•									•			
	633	•									•			
	6A3	•									•			
	634	•									•			
	6A4	•									•			
	854	•									•			
	115	•									•			


FC/FL

P1R	B5					B14								
	56	63	71	80	90	100	112	56	63	71	80	90	100	112
	303	•									•			
	453	•									•			
	503	•									•			
	633	•									•			
	6A3	•									•			
	634	•									•			
	6A4	•									•			
	854	•									•			
	115	•									•			


FC/FL

P1L	B5					B14								
	56	63	71	80	90	100	112	56	63	71	80	90	100	112
	303	•									•			
	453	•									•			
	503	•									•			
	633	•									•			
	6A3	•									•			
	634	•									•			
	6A4	•									•			
	854	•									•			
	115	•									•			

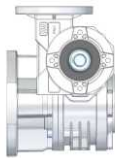
P2

P2	B5					B14								
	56	63	71	80	90	100	112	56	63	71	80	90	100	112
	303	•									•			
	453	•									•			
	503	•									•			
	633	•									•			
	6A3	•									•			
	634	•									•			
	6A4	•									•			
	854	•									•			
	115	•									•			


P2R

P2R	B5					B14								
	56	63	71	80	90	100	112	56	63	71	80	90	100	112
	303	•									•			
	453	•									•			
	503	•									•			
	633	•									•			
	6A3	•									•			
	634	•									•			
	6A4	•									•			
	854	•									•			
	115	•									•			


P2L

P2L	B5					B14								
	56	63	71	80	90	100	112	56	63	71	80	90	100	112
	303	•									•			
	453	•									•			
	503	•									•			
	633	•									•			
	6A3	•									•			
	634	•									•			
	6A4	•									•			
	854	•									•			
	115	•									•			


Q1

Q1	B5					B14								
	56	63	71	80	90	100	112	56	63	71	80	90	100	112
	303	•									•			
	453	•									•			
	503	•									•			
	633	•									•			
	6A3	•									•			
	634	•									•			
	6A4	•									•			
	854	•									•			
	115	•									•			


Q1R

Q1R	B5					B14								
	56	63	71	80	90	100	112	56	63	71	80	90	100	112
	303	•									•			
	453	•									•			
	503	•									•			
	633	•									•			
	6A3	•									•			
	634	•									•			
	6A4	•									•			
	854	•									•			
	115	•									•			


Q1L

Q1L	B5					B14								
	56	63	71	80	90	100	112	56	63	71	80	90	100	112
	303	•									•			
	453	•									•			
	503	•									•			
	633	•									•			
	6A3	•									•			
	634	•									•			
	6A4	•									•			
	854	•									•			
	115	•									•			


Q2

Q2	B5					B14								
	56	63	71	80	90	100	112	56	63	71	80	90	100	112
	303	•									•			
	453	•									•			
	503	•									•			
	633	•									•			
	6A3	•									•			
	634	•									•			
	6A4	•									•			
	854	•									•			
	115	•									•			


Q2R

Q2R	B5					B14								
	56	63	71	80	90	100	112	56	63	71	80	90	100	112
	303	•									•			
	453	•									•			
	503	•									•			
	633	•									•			
	6A3	•									•			
	634	•									•			
	6A4	•									•			
	854	•									•			
	115	•									•			


Q2L

Q2L	B5					B14								
	56	63	71	80	90	100	112	56	63	71	80	90	100	112
	303	•									•			
	453	•									•			
	503	•									•			
	633	•									•			
	6A3	•									•			
	634	•									•			
	6A4	•									•			
	854	•									•			
	115	•									•			

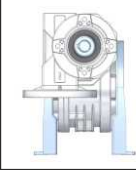
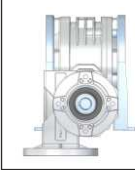
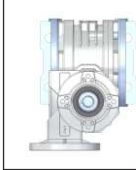

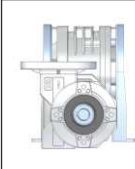
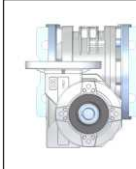
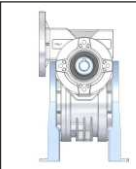
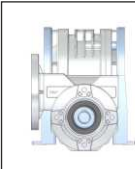
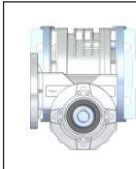

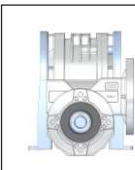
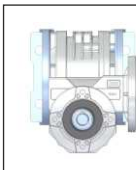
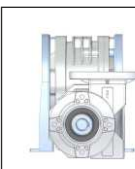
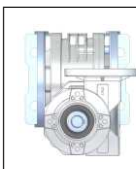
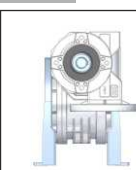
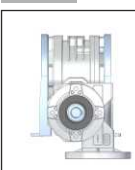
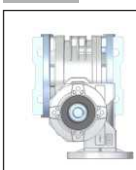

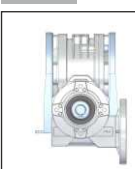

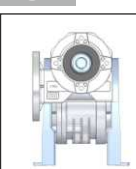
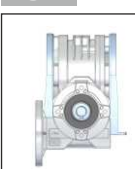
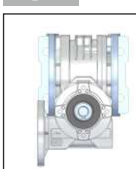
R1

R1	B5					B14								
	56	63	71	80	90	100	112	56	63	71	80	90	100	112
	303	•									•			
	453	•									•			
	503	•									•			
	633	•									•			
	6A3	•									•			
	634	•									•			
	6A4	•									•			
	854	•									•			
	115	•									•			

R1R

R1R	B5					B14								
	56	63	71	80	90	100	112	56	63	71	80	90	100	112
	303	•									•			
	453	•									•			
	503	•									•			
	633	•									•	</		

MOUNTING POSITIONS / ESECUZIONI DI MONTAGGIO

PA				PB				PV			
P1	B5	B14		P1	B5	B14		P1	B5	B14	
	56 63 71 80 90 100 112	56 63 71 80 90 100 112			56 63 71 80 90 100 112	56 63 71 80 90 100 112			56 63 71 80 90 100 112	56 63 71 80 90 100 112	
	303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115		
	303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115		
	303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115		
	303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115		
	303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115		
	303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115		
	303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115		
	303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115				303 453 503 633 6A3 634 6A4 854 115		