РусАвтоматизация®

WAMGROUP®

TECHNICAL CATALOGUE

- **"M 4_" TYPE GEAR REDUCTION UNITS**
  TECHNICAL CATALOGUE

- ***TESTATE MOTRICI TIPO "M 4_"***
  CATALOGO TECNICO

All rights reserved © WAMGROUP.

CATALOGUE No **WA.050.22 T.**			
ISSUE **A1**	CIRCULATION **100**	LATEST UPDATE **04.08**	

All the products described in this catalogue are manufactured according to **WAM® S.p.A. Quality System procedures.**
The Company's Quality System, certified in July 1994 according to International Standards **UNI EN ISO 9002-94** and extended to **UNI EN ISO 9001-2000** in October, 2002, ensures that the entire production process, starting from the processing of the order to the technical service after delivery, is carried out in a controlled manner that guarantees the quality standard of the product.

*Alle in diesem Katalog beschriebenen Erzeugnisse werden in Konformität mit dem **Qualitätssystem der WAM® S.p.A. hergestellt.***
*Das im Juli 1994 zertifizierte Qualitätssystem entspricht der Norm **UNI EN ISO 9002-94** (im Oktober 2002 auf **UNI EN ISO 9001-2000** erweitert) und gewährleistet dem Kunden eine strenge Qualitätskontrolle in jeder Phase des Produktionprozesses bis hin zum Kundendienst nach Auslieferung der Ware.*

Tous les produits décrits dans ce catalogue ont été réalisé selon les modalités opérationnelles définies **Système de Qualité de WAM® S.p.A.**
Le système de Qualité de l'entreprise, certifié au mois de juillet 1994 en conformité aux Normes Internationales **UNI EN ISO 9002-94** et successivement étendu à **UNI EN ISO 9001-2000** au mois de octobre 2002, est en mesure d'assurer que le procédé entier de production, à partir de la formulation de la commande jusqu'au service technique après la livraison, soit effectué de manière contrôlée et appropriée afin de garantir le standard de qualité du produit.

*Tutti i prodotti descritti in questo catalogo sono stati realizzati secondo modalità operative definite **Sistema Qualità di WAM® S.p.A.***
*Il Sistema Qualità aziendale, certificato dal luglio 1994 in conformità alle Normative Internazionali **UNI EN ISO 9002-94** e successivamente esteso alle Normative Internazionali **UNI EN ISO 9001-2000** nell'ottobre 2002, è in grado di assicurare che l'intero processo produttivo, dalla formulazione dell'ordine fino all'assistenza tecnica successiva alla consegna, venga effettuato in modo controllato ed adeguato a garantire lo standard qualitativo del prodotto.*

UNI EN ISO 9001-2000
Certified Company

This publication cancels and replaces any previous edition and revision.
We reserve the right to implement modifications without notice.
This catalogue cannot be reproduced, even partially, without prior consent.

Diese Veröffentlichung annuliert und ersetzt jeder hergehende Edition oder Revision.
WAM® behält sich das Recht vor, Anderungen ohne vorherige Informationen durchzuführen.

Cette publication annule et remplace toutes les autres précédentes.
Nous nous réservons le droit d'apporter toutes modifications à nos produits.
La reproduction et la publication partielle ou totale de ce catalogue est interdite sans notre autorisation.

Questa pubblicazione annulla e sostituisce ogni precedente edizione o revisione.
Ci riserviamo il diritto di apportare modifiche senza preavviso.
E' vietata la riproduzione anche parziale senza autorizzazione.

1 TECHNICAL CATALOGUE / CATALOGO TECNICO

Construction data	Caratteristiche tecniche	**T** .01
Inlet / Outlet	Entrata / Uscita	**T** .02
Mounting position	Posizione montaggio	**T** .03
Modular key code	Chiave sigla modulare	**T** .04
Selection	Selezione	**T** .05
Performances	Prestazioni	**T** .06
M 41 type gearbox - ES output	Testata motrice M 41 - Uscita ES	**T** .07
M 41 type gearbox - VE output	Testata motrice M 41 - Uscita VE	**T** .08
M 41 type gearbox - CM output	Testata motrice M 41 - Uscita CM	**T** .09
M 43 type gearbox - ES output	Testata motrice M 43 - Uscita ES	**T** .10
M 43 type gearbox - VE output	Testata motrice M 43 - Uscita VE	**T** .11
M 43 type gearbox - CM output	Testata motrice M 43 - Uscita CM	**T** .12
M 45 type gearbox - ES output	Testata motrice M 45 - Uscita ES	**T** .13
M 45 type gearbox - VE output	Testata motrice M 45 - Uscita VE	**T** .14
M 47 type gearbox - ES output	Testata motrice M 47 - Uscita ES	**T** .15
M 47 type gearbox - VE output	Testata motrice M 47 - Uscita VE	**T** .16
M 49 type gearbox - ES output	Testata motrice M 49 - Uscita ES	**T** .17
M 49 type gearbox - VE output	Testata motrice M 49 - Uscita VE	**T** .18
M type gearbox - Inlet PAM	Testata motrice M - Entrata PAM	**T** .19
XUH sealing	Tenuta XUH	**T** .20
Weights	Pesi	**T** .21

2 MAINTENANCE / MANUTENZIONE

Maintenance	Manutenzione	**M** .01→.02

3 SPARE PARTS / PEZZI DI RICAMBIO

Spare parts	Pezzi di ricambio	**R** .01
M41	M41	02 → .03
M43	M43	04 → .05
M45	M45	06 → .07
M47	M47	08 → .09
M49	M49	10 → .11

M4 series GEAR REDUCERS
Technical features

GEARING
- cylindrical gear

SIZES
- 5 sizes, with centre distance according to Ra 10 UNI 2017 (63...160).
  M41 / M43 / M45 / M47 / M49

GEAR RATIOS
- Nominal gear ratios in accordance with Ra 10 UNI 2017 (5, 6, 7, 10)

PERFORMANCE
- Loading capacity of gearing, calculated at breakage and surface pressure in accordance with ISO 6336/96, DIN 3990/87, AGMA 2001- C95.
  Nominal torques that can be transmitted to output shaft up to 1500 Nm. Installed power at input up to 30 kW.

GEARS
- Cylindrical gears with helicoid teeth with finished or ground involute profile.

MATERIALS
- Gears made of 20 MnCr 5 steel UNI EN 10084 – case-hardened and tempered
- Mechanical cast iron casing EN-GJL-250 UNI EN 1561.
- Output shaft made of C45 steel UNI EN 10083-2 induction hardened.
- Input shafts and P.A.M. Linings made of 20 MnCr5 UNI 10084 case-hardened and tempered.

BEARINGS
- Ball bearings.

YIELD
- The reference yield considered for calculating the performance indicated in this catalogue is: η = 0.98

PAINTING
- RAL 5010 - blue.

USE
- The M4 series gear reducers can be mounted directly on screws like gear reduction units: in this case a seal is usually mounted on XUH type output shaft.

TEMPERATURE
- The M4 series gear reducers are supplied with lubricant for use at ambient temperature (0°C - 40°C).
- For ambient temperatures exceeding 40°C use oil having viscosity immediately higher than that indicated in the Table.
- If the ambient temperature is less than a 0°C, use oil having viscosity immediately lower than that shown in the Table (ref. Maintenance Catalogue).

TESTATE MOTRICI serie M4
Caratteristiche tecniche

ROTISMO
- Ad un ingranaggio cilindrico

GRANDEZZE
- N° 5 grandezze con interasse secondo Ra 10 UNI 2017 (63...160).
  M41 / M43 / M45 / M47 / M49

RAPPORTI DI TRASMISSIONE
- Rapporti di trasmissioni nominali secondo Ra 10 UNI 2017 (5, 6, 7, 10)

PRESTAZIONI
- Capacità di carico del rotismo, calcolata a rottura e a pressione superficiale secondo ISO 6336/96, DIN 3990/87, AGMA 2001-C95.
  Momenti torcenti nominali trasmissibili all'albero lento fino a 1500 Nm. Potenze installabili in entrata fino a 30 kW.

INGRANAGGI
- Ingranaggi cilindrici a dentatura elicoidale con profilo ad evolvente rasato o rettificato.

MATERIALI
- Ingranaggi costruiti in acciaio 20 MnCr 5 UNI EN 10084 - cementati e temprati.
- Carcassa in fusione di ghisa meccanica EN-GJL-250 UNI EN 1561.
- Alberi di uscita in acciaio C45 UNI EN 10083-2 temprati ad induzione.
- Alberi di entrata e manicotti P.A.M. in acciaio 20 MnCr5 UNI 10084 cementati e temprati.

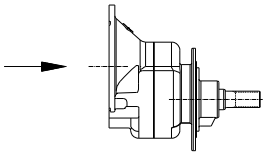
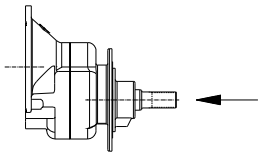
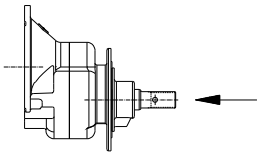
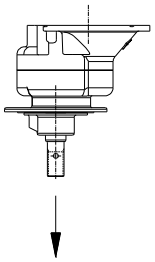
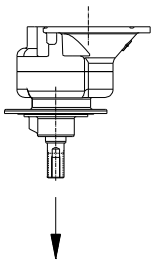
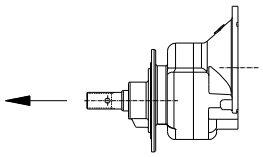
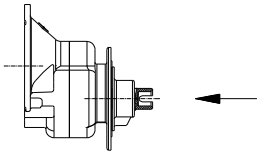
CUSCINETTI
- Volventi a sfere.

RENDIMENTI
- Il rendimento di riferimento considerato per il calcolo delle prestazioni indicate nel presente catalogo è: η = 0.98

VERNICIATURA
- RAL 5010 - blu.

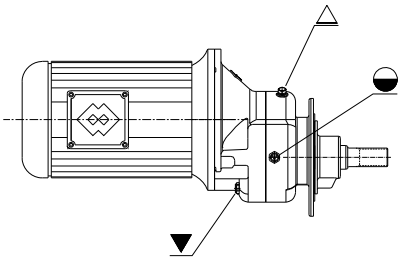
UTILIZZO
- I riduttori serie M4 possono essere montati direttamente sulle coclee come testate motrici: in questo caso viene normalmente montata una tenuta sull'albero uscita tipo XUH.

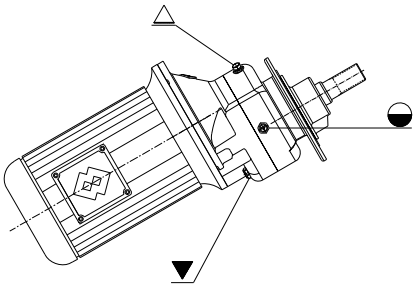
TEMPERATURA
- I riduttori serie M4 sono forniti con lubrificante per impiego a temperatura ambiente (0°C - 40°C).
- Per temperature dell'ambiente superiori a 40°C adottare olio con viscosità immediatamente superiore a quella indicata in tabella.
- Se la temperatura dell'ambiente è inferiore a 0°C, adottare olio con vescosità immediatamente inferiore a quella prevista in tabella (rif. Catalogo Maintenance).

INPUT / *ENTRATA*	Type / Tipo	Description	Descrizione
	**PAM**	To be bolted to B5 motor	Predisposto attacco motore B5
OUTPUT / *USCITA*	**Type / Tipo**	**Description**	**Descrizione**
	**ES**	Standard outputs for tubular screw conveyors. Grooved output shaft in accordance with DIN 5482.	Uscita di Serie per coclee tubolari. Albero di uscita scanalato secondo DIN 5482.
	**EV**	Non standard outputs for tubular screw conveyors. Like ES output but with hole for pinning.	Uscita non di serie per coclee tubolari. Come uscita ES ma con foro per spinatura.
	**VE**	Standard output for vertical screw conveyors. Grooved output shaft in accordance with DIN 5482 with hole for pinning. Assembly in vertical position with output shaft downwards resistant to traction forces	Uscita di Serie per coclee verticali. L'albero di uscita è scanalato secondo DIN 5482 con foro per spinatura. Montaggio in posizione verticale con albero di uscita verso il basso resistente a forze di trazione
	**VE_G**	Non standard output for VE screw conveyors. The output shaft has an axial hole for assembling coupling with joint in traction. Only available for sizes M45 - M47 - M49	Uscita non di serie per coclee VE. L'albero di uscita presenta un foro assiale per il montaggio dell' accoppiamento con giunto in trazione. Disponibile solo per le grandezze M45 - M47 - M49.
	**VS**	Non standard output, with output shaft resistant to traction forces like VE but can be mounted in a position different from vertical.	Uscita non di serie, con albero di uscita resistente a forze di trazione come VE ma montabile in posizione diversa da quella verticale.
	**CM**	The output shaft has a quick-release "bayonet" coupling specially designed for mortar mixers. Available only for sizes M41 - M43.	L' albero di uscita si presenta con un particolare innesto rapido a " baionetta " appositamente studiato per i mescolatori per malte. Disponibile solo per le grandezze M41 - M43.

OIL PLUGS POSITION - *POSIZIONE DEI TAPPI OLIO*

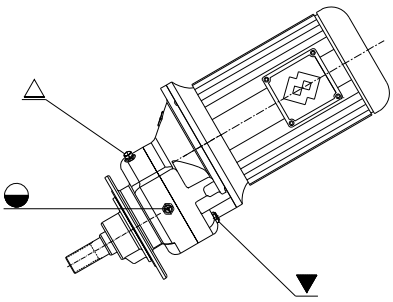
Pos. ES

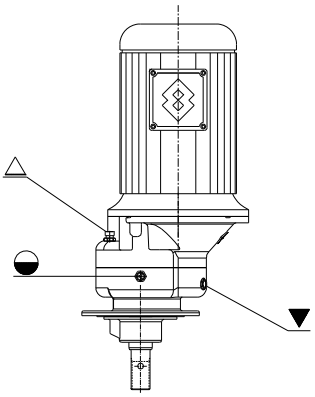




Pos. ES

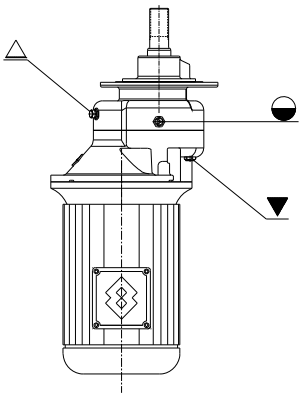
Pos. ES

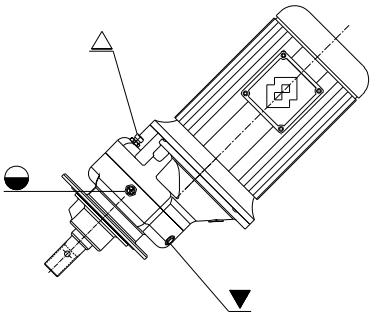




Pos. VE

Assembly positions to be avoided (Consult the manufacturer)
Posizioni di montaggio da evitare (Consultare il produttore)





△ BREATHER / SFIATO

◒ LEVEL / LIVELLO

▼ OUTLET / SCARICO

"M 4_" TYPE GEAR REDUCTION UNITS - MODULAR CODE KEY

TESTATA MOTRICE TIPO "M 4_"- CHIAVE SIGLA MODULARE

M [ ][ ] [ ][ ] [ ][ ][ ] [ ][ ][ ] [ ]

Size - *Grandezza*
41 - 43 - 45 - 47 - 49

Gear Ratio - *Rapporto Riduzione*
05 - 06 - 07 - 10

Input - *Entrata*	**Gear units *Riduttore***
080	M41 - M43
090	M41 - M43
100 - 112	M41 - M43 - M45
132	M43 - M45 - M47
160	M45 - M47 - M49
180	M47 - M49
200	M49

Output - *Uscita*		**ø Screw *ø Coclea***
ES-EV-VE-VS-CM	0	114-139
ES-EV-VE-VS-CM	1	168
ES-EV-VE-VS	2	193
ES-EV-VE-VE_G-VS	3	219
ES-EV-VE-VE_G-VS	4	273
ES-EV-VE-VE_G-VS	5	323

G = traction coupling - *giunto trazione*

"M 4_" TYPE GEAR REDUCTION UNITS - SELECTION

TESTATA MOTRICE TIPO "M 4_"- SELEZIONE

M type gear reduction units are designed and produced mainly to be fitted on screw conveyors.

Le testate motrici serie M sono progettate e costruite fondamentalmente per essere montate su coclee.

SELECTION PROCEDURE Set		PROCEDIMENTO DI SCELTA Posto	
N	Rotation speed of the screw conveyor	Velocità di rotazione della coclea	**RPM**
Pa	Absorbed power (overload factor F_o included)	Potenza assorbita (già comprensiva del fattore di sovraccarico F_o)	**kW**
Pi	Installed power	Potenza installata	**kW**
Ps	Gearbox selection power	Potenza di scelta riduttore	**kW**
X	Worth representing a step on the power size	Valore che rappresenta uno scalino nella grandezza delle potenze	

Selection is based on Ps and is reported on the below table.
Two cases can be:

1) Installed power Pi is "immediately" superior to the absorbed power Pa
   (ex. Pi = A5,5 kW and Pa = 4 kW).
   The gearbox is selected by considering Ps = Pa
2) Installed power Pi is "highly" superior to the absorbed power Pa
   (ex. Pi = 7,5 kW and Pa = 3 kW)
   The gearbox is selected by considering Ps = Pi - X

In the below tables the safety factor of the gearbox as regards the selection power Ps is at least 1.
For special request, contact please our Sales Department.

La scelta si basa su Ps ed è riportata nella tabella sottostante.
Si possono avere 2 casi:

1) La potenza installata Pi è "immediatamente" superiore alla potenza assorbita Pa
   (es. Pi = 5,5 kW e Pa = 4 kW).
   Si sceglie il riduttore prendendo Ps = Pa
2) La potenza installata Pi è "molto superiore" alla potenza assorbita Pa
   (es. Pi = 7,5 kW e Pa = 3 kW)
   Si sceglie il riduttore prendendo Ps = Pi - X

Nelle tabelle seguenti il fattore di servizio del riduttore rispetto alla potenza di scelta Ps è almeno 1.
Per richieste particolari rivolgersi al ns. Ufficio Tecnico Commerciale.

4-pole-50Hz electric motors/Gear boxes/Screw conveyors combinations - *Abbinamenti Motori elettrici 4 poli-50Hz/Riduttori/Coclee*

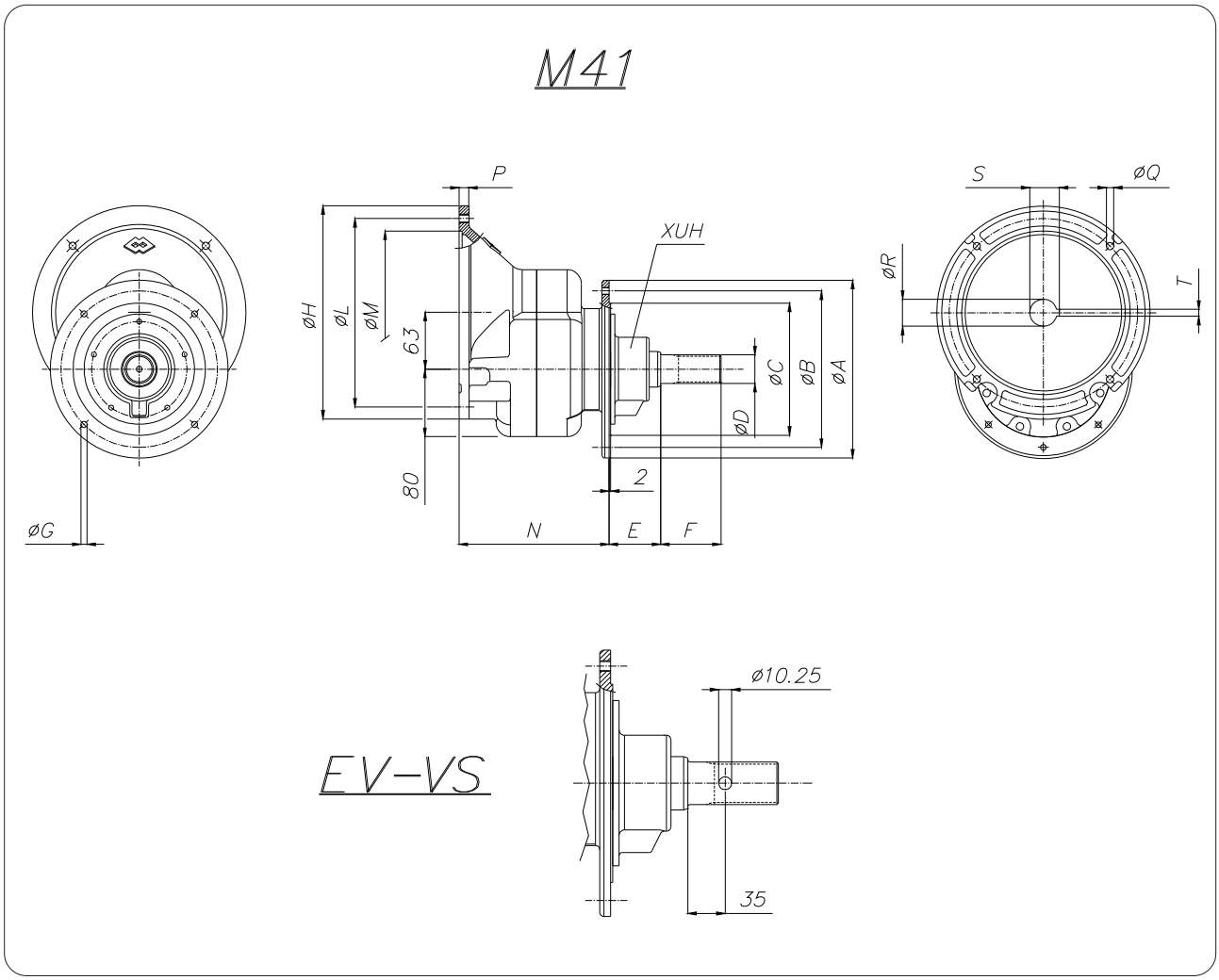
RPM	Ø screw coclea	kW															ratio rapporto
		80		90		100		112	132			160		180		200	
		0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	9.2	11	15	18.5	22	30	
290	114	M41	M41	M41	M41	M41	M41	M43	/	/	/	/	/	/	/	/	5
	139	M41	M41	M41	M41	M41	M41	M43	/	/	/	/	/	/	/	/	
	168	M43	M43	M43	M43	M43	M43	M43	M43	M45	M45	M45	M45	M47	/	/	
	193	M43	M43	M43	M43	M43	M43	M43	M43	M45	M45	M45	M45	M47	/	/	
	219	/	/	M43	M43	M43	M43	M43	M43	M45	M45	M45	M45	M47	M47	M49	
	273	/	/	/	/	/	/	/	M45	M45	M45	M45	M45	M47	M47	M49	
	323	/	/	/	/	/	/	/	M45	M45	M45	M45	M45	M47	M47	M49	
230	114	M41	M41	M41	M41	M41	/	/	/	/	/	/	/	/	/	/	6
	139	M41	M41	M41	M41	M41	/	/	/	/	/	/	/	/	/	/	
	168	M43	M43	M43	M43	M43	M43	M43	M45	M45	M45	M45	M47	/	/	/	
	193	M43	M43	M43	M43	M43	M43	M43	M45	M45	M45	M45	M47	/	/	/	
	219	/	/	M43	M43	M43	M43	M43	M45	M45	M45	M45	M47	M47	M49	M49	
	273	/	/	/	/	M45	M45	M45	M45	M45	M45	M45	M47	M47	M49	M49	
	323	/	/	/	/	M45	M45	M45	M45	M45	M45	M45	M47	M47	M49	M49	
205	114	M41	M41	M41	M41	M43	M43	M43	/	/	/	/	/	/	/	/	7
	139	M41	M41	M41	M41	M43	M43	M43	/	/	/		/	/	/	/	
	168	M43	M43	M43	M43	M43	M43	M43	M45	M45	M45	M47	M47	/	/	/	
	193	M43	M43	M43	M43	M43	M43	M43	M45	M45	M45	M47	M47	/	/	/	
	219	/	/	M43	M43	M43	M43	M43	M45	M45	M45	M47	M47	M49	M49	/	
	273	/	/	/	/	M45	M45	M45	M45	M45	M45	M47	M47	M49	M49	/	
	323	/	/	/	/	M45	M45	M45	M45	M45	M45	M47	M47	M49	M49	/	
145	114	M41	M41	M41	M43	M43	/	/	/	/	/	/	/	/	/	/	10
	139	M41	M41	M41	M43	M43	/	/	/	/	/	/	/	/	/	/	
	168	M43	M43	M43	M43	M43	M45	M45	M47	M47	M47	/	/	/	/	/	
	193	M43	M43	M43	M43	M43	M45	M45	M47	M47	M47	/	/	/	/	/	
	219	/	/	M43	M43	M43	M45	M45	M47	M47	M47	M49	M49	M49	/	/	
	273	/	/	/	/	M45	M45	M45	M47	M47	M47	M49	M49	M49	/	/	
	323	/	/	/	/	M45	M45	M45	M47	M47	M47	M49	M49	M49	/	/	

I_n	n_1	n_2	M 41		M 43		M 45		M 47		M 49	
			T_n	P_n	T_n	P_n	T_n	P_n	T_n	P_n	T_n	P_n
5	2900	580	90	5.4	180	11.3	420	26.9	580	34.9	1200	75.5
	1450	290	110	3.3	225	7.1	555	17.7	735	22.1	1500	47.2
	1000	200	115	2.4	230	5.0	565	12.5	850	17.6	1750	38.0
	750	150	120	1.9	235	3.8	575	9.5	920	14.3	1900	30.9
6	2900	483	65	3.6	160	8.3	380	19.9	550	30.1	1250	65.6
	1450	242	80	2.2	200	5.2	460	12.1	700	19.1	1570	41.2
	1000	167	85	1.6	205	3.7	470	8.5	730	13.8	1690	30.6
	750	125	90	1.3	210	2.8	480	6.5	750	10.6	1790	24.3
7	2900	414	70	3.1	140	6.6	320	15.0	590	26.5	1230	57.8
	1450	207	85	1.9	180	4.2	410	9.6	720	16.2	1500	35.2
	1000	143	90	1.4	185	3.0	420	6.8	730	11.3	1540	24.9
	750	107	95	1.1	190	2.3	430	5.2	740	8.6	1560	18.9
10	2900	290	50	1.6	100	3.4	240	7.5	440	14.2	820	27.6
	1450	145	72	1.1	132	2.2	310	4.9	578	9.2	1084	18.5
	1000	100	65	0.70	130	1.5	315	3.4	560	6.2	1060	12.3
	750	75	70	0.57	135	1.2	320	2.6	570	4.8	1100	9.6

i_n = gear ratio - *rapporto di trasmissione nominale*
n_1 = number of e-motor revolutions - *numero di giri al minuto in entrata*
n_2 = Rpm at output shaft - *numero di giri al minuto in uscita*
T_n = output nominal torque [Nm] - *momento torcente nominale in uscita [Nm]*
P_n = input nominal power [kW] - *potenza nominale in entrata [kW]*

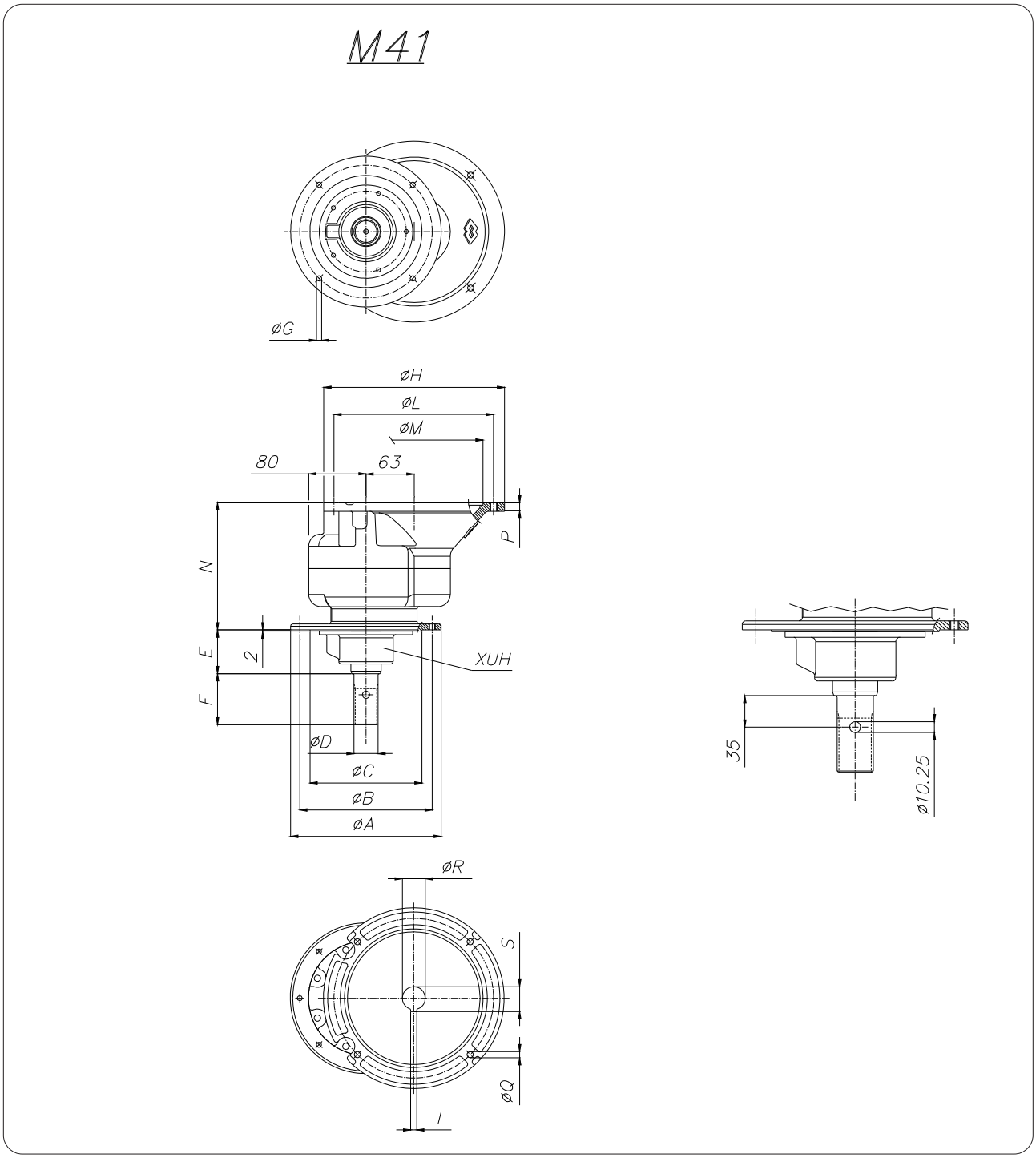
The power ratings indicated in the Table are those relative to service factor =1 for each reduction gear.

Le potenze riassunte in tabella sono quelle relative al fattore di servizio =1 per ciascun riduttore.



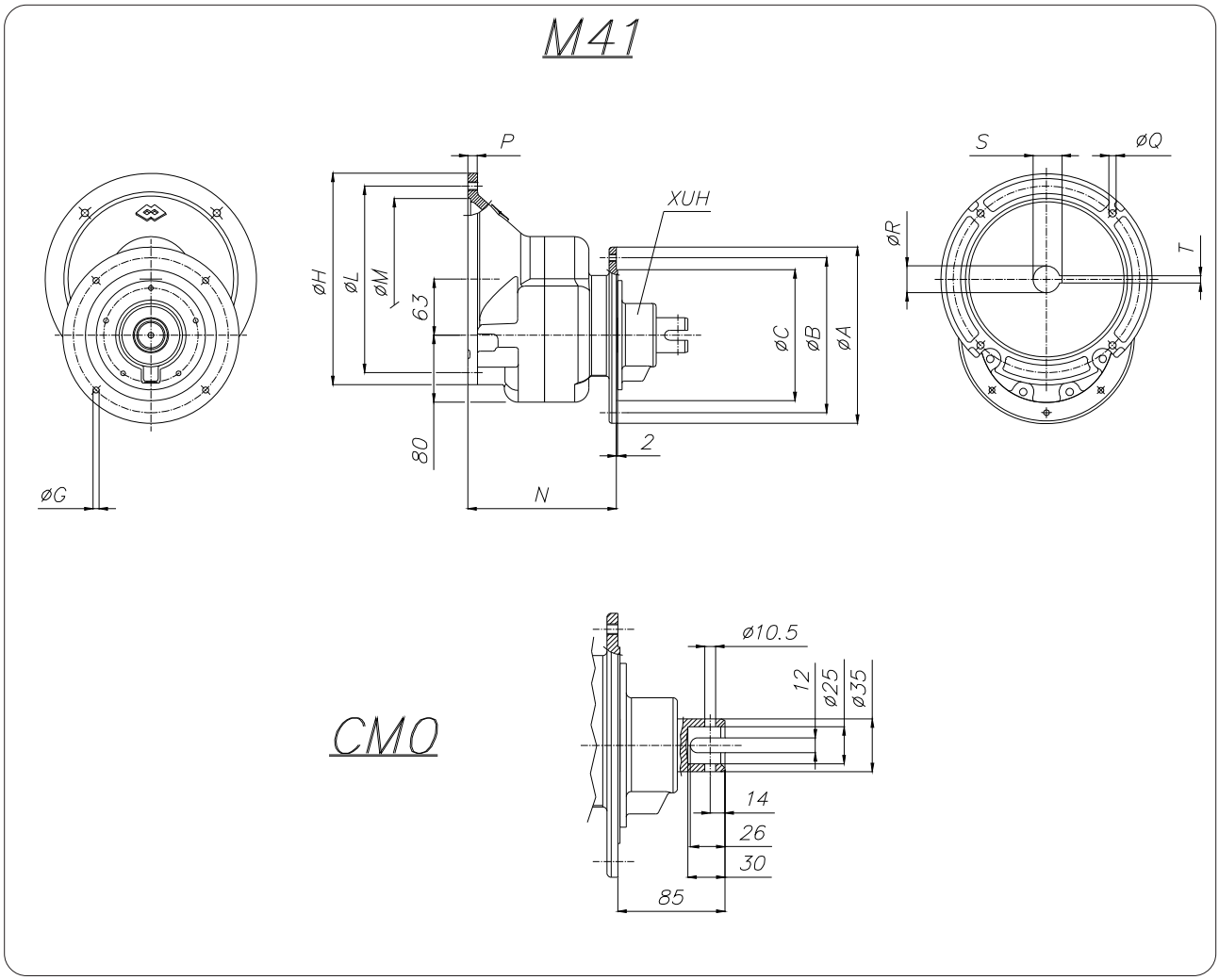
Gear reducer *Testata motrice*	Output *Uscita*		ø Feeder - *Coclea*	ø A	ø B	ø C	ø D DIN 5482	E	F	ø G	
										N°	Ø
M41	**ES-EV-VS**	**0**	114 - 139	190	170	148	28 X 25	54	65	4	M8

Motor size *Grand. motore*	ø H	ø L	ø M	N	P	ø Q	ø R	S	T	Weight - *Peso* kg				
										ES0	ES1	ES2	ES3	ES4
80	200	165	130	157.5	12	M 10	19	21.5	6	15.7	/	/	/	/
90	200	165	130	157.5	12	M 10	24	27	8	15.7	/	/	/	/
100 - 112	250	215	180	167.5	14	M 12	28	31	8	15.7	/	/	/	/



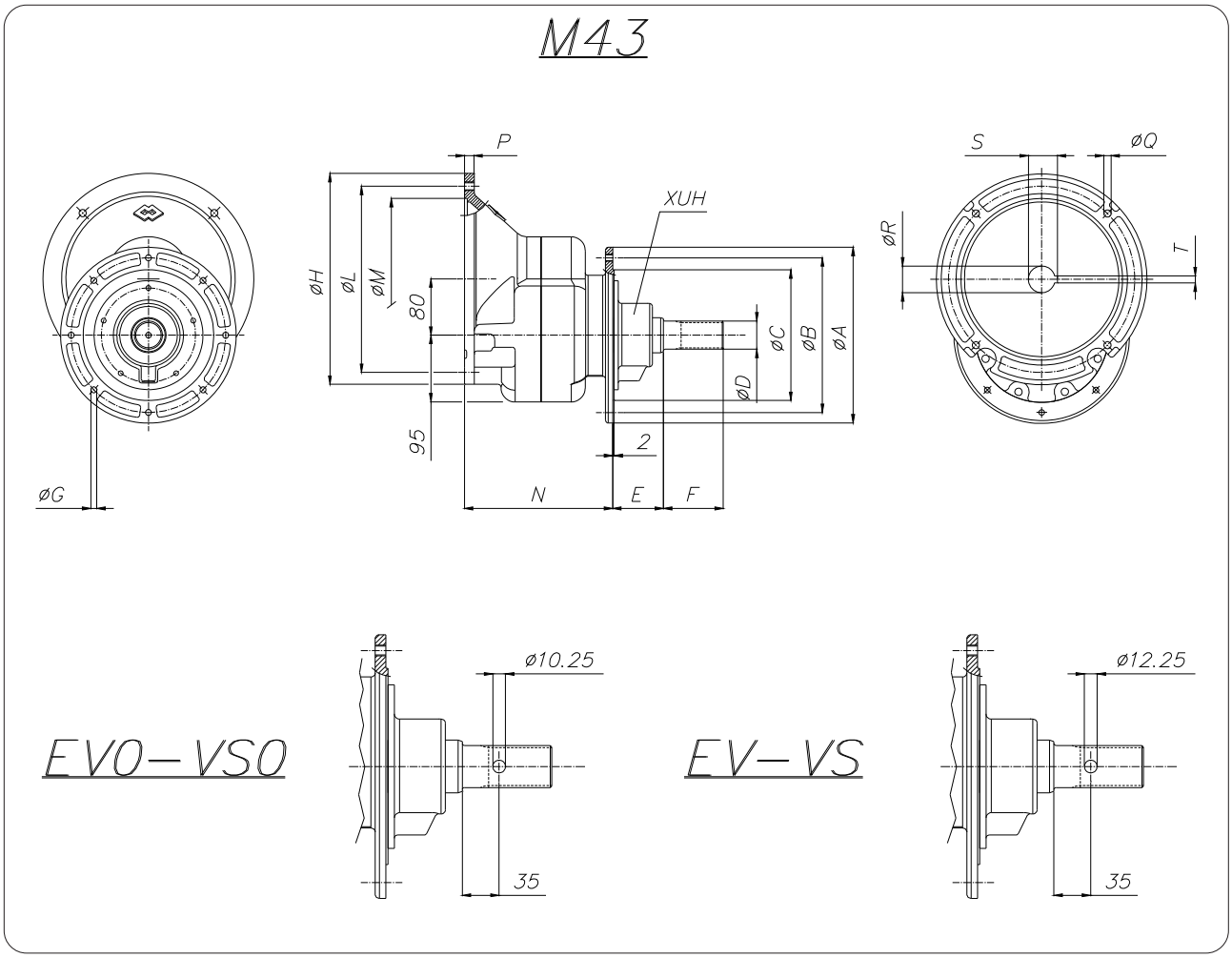
Gear reducer *Testata motrice*	Output *Uscita*		ø Feeder - *Coclea*	ø A	ø B	ø C	ø D DIN 5482	E	F	ø G	
										N°	Ø
M41	**VE**	**0**	114 - 139	190	170	148	28 X 25	54	65	4	M8

Motor size *Grand. motore*	ø H	ø L	ø M	N	P	ø Q	ø R	S	T	Weight - *Peso* kg				
										VE0	VE1	VE2	VE3	VE4
80	200	165	130	157.5	12	M 10	19	21.5	6	15.7	/	/	/	/
90	200	165	130	157.5	12	M 10	24	27	8	15.7	/	/	/	/
100 - 112	250	215	180	167.5	14	M 12	28	31	8	15.7	/	/	/	/



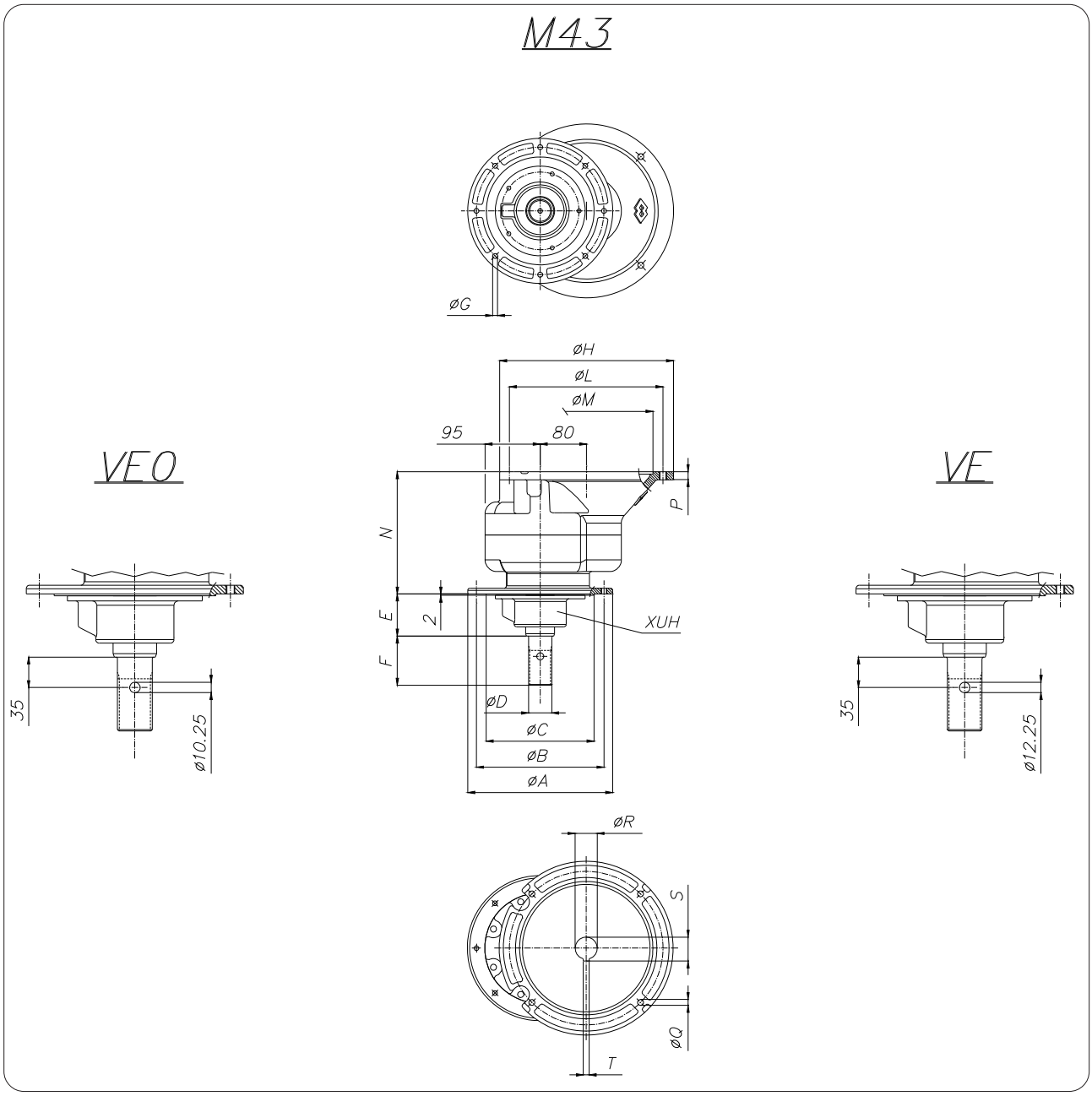
Gear reducer *Testata motrice*	Output *Uscita*		ø Feeder - *Coclea*	ø A	ø B	ø C	ø D DIN 5482	E	F	ø G	
										N°	Ø
M41	**CM**	**0**	114 - 139	190	170	148	/	/	/	4	M 8

Motor size *Grand. motore*	ø H	ø L	ø M	N	P	ø Q	ø R	S	T	Weight - *Peso* kg	
										CM0	CM1
100 - 112	250	215	180	167.5	14	M 12	28	31	8	17.5	/



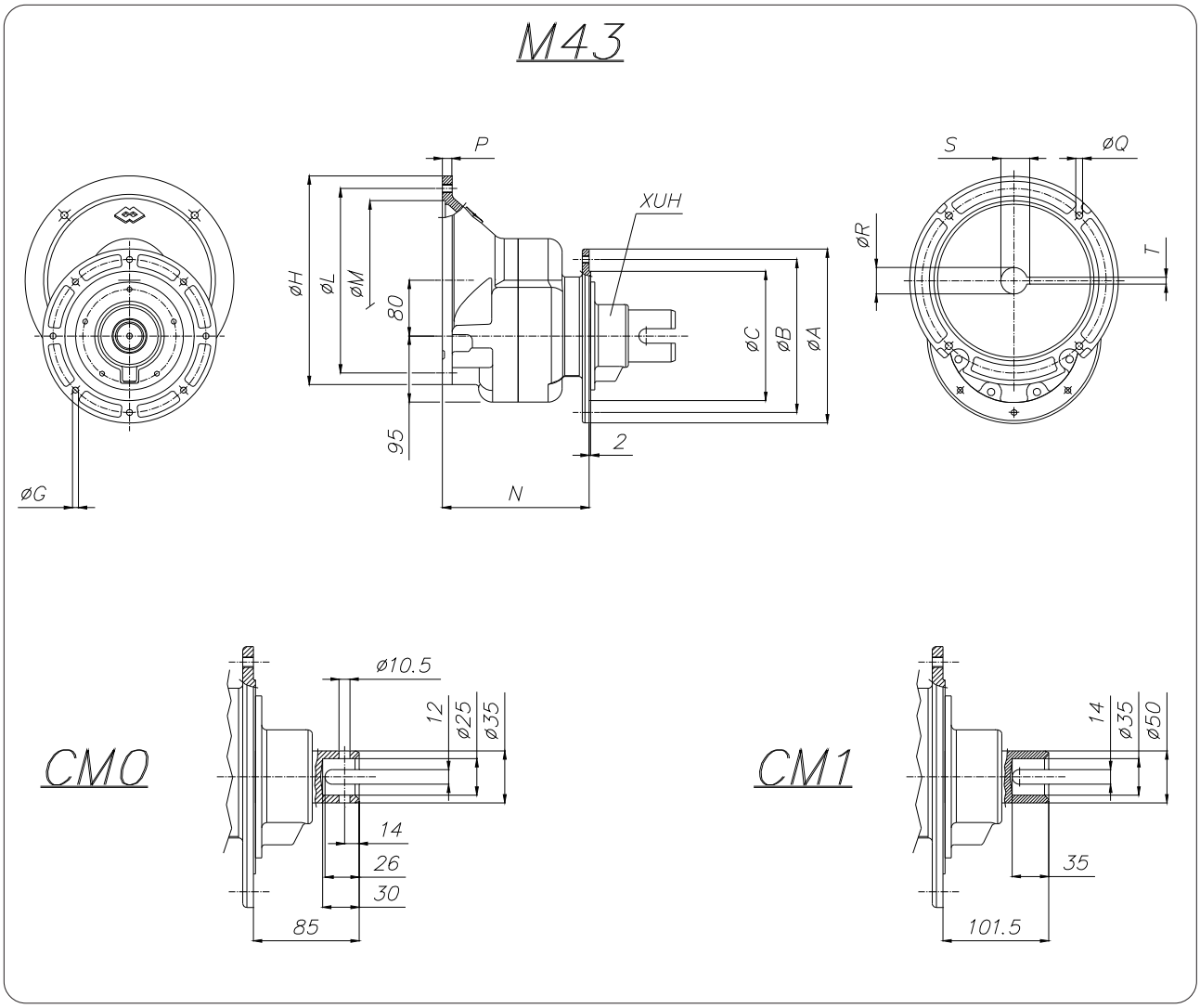
Gear reducer *Testata motrice*	Output *Uscita*		ø Feeder - *Coclea*	ø A	ø B	ø C	ø D DIN 5482	E	F	ø G	
										N°	Ø
M43	ES-EV-VS	0	114 - 139	190	170	148	28 x 25	54	65	4	M 8
	ES-EV-VS	1	168	250	220	162	40 x 36	72.5	85	8	M 10
	ES-EV-VS	2	193	250	220	186	40 x 36	72.5	85	8	M 10
	ES-EV-VS	3	219	275	250	210	40 x 36	72.5	85	8	M 10

Motor size *Grand. motore*	ø H	ø L	ø M	N		P	ø Q	ø R	S	T	Weight - *Peso* kg				
				ES0							ES0	ES1	ES2	ES3	ES4
80	200	165	130	/	181	12	M 10	19	21.5	6	/	24	24	/	/
90	200	165	130	171	181	12	M 10	24	27	8		24	24	26.5	/
100 - 112	250	215	180	181	191	14	M 12	28	31	8		26	26	28.5	/
132	300	265	230	/	211	14	M 12	38	41	10	/	29	29	31	/



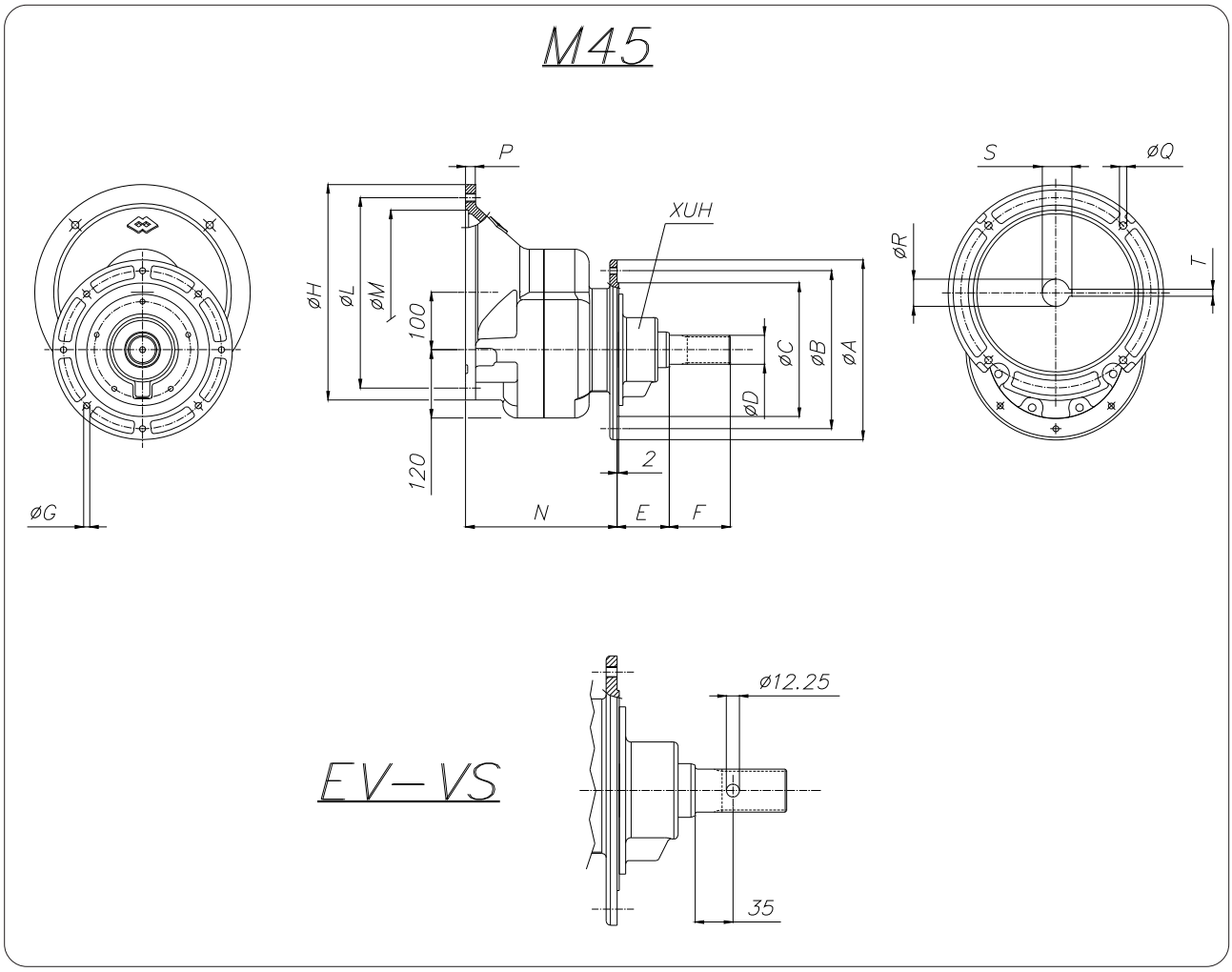
Gear reducer *Testata motrice*	Output *Uscita*		ø Feeder - *Coclea*	ø A	ø B	ø C	ø D DIN 5482	E	F	ø G	
										N°	Ø
M43	VE	0	114 - 139	190	170	148	28 x 25	54	65	4	M 8
	VE	1	168	250	220	162	40 x 36	72.5	85	8	M 10
	VE	2	193	250	220	186	40 x 36	72.5	85	8	M 10
	VE	3	219	275	250	210	40 x 36	72.5	85	8	M 10

Motor size *Grand. motore*	ø H	ø L	ø M	N		P	ø Q	ø R	S	T	Weight - *Peso* kg				
				VE0							VE0	VE1	VE2	VE3	VE4
80	200	165	130	/	181	12	M 10	19	21.5	6	/	24	24	/	/
90	200	165	130	171	181	12	M 10	24	27	8		24	24	26.5	/
100 - 112	250	215	180	181	191	14	M 12	28	31	8		26	26	28.5	/
132	300	265	230	/	211	14	M 12	38	41	10	/	29	29	31	/



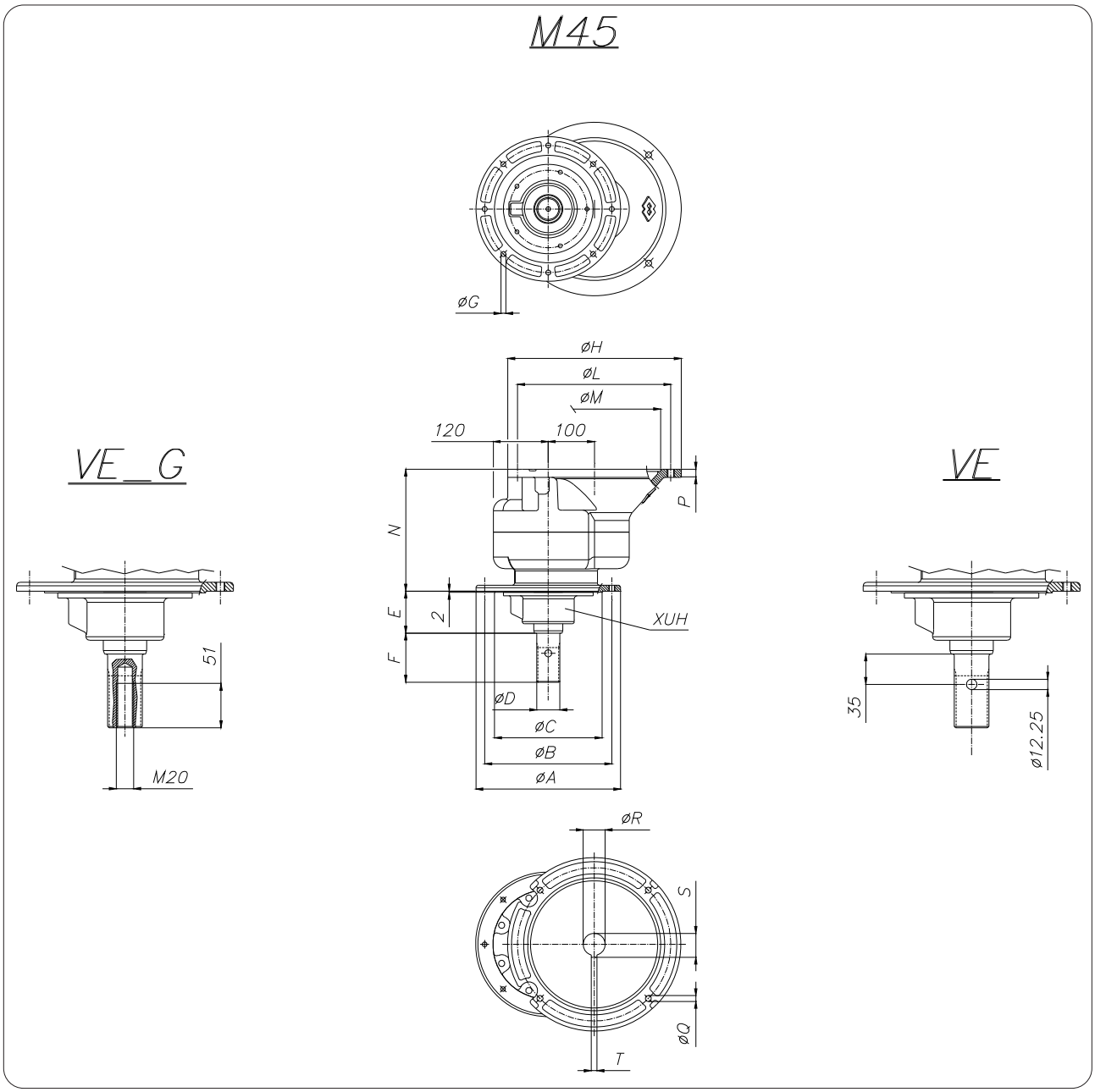
Gear reducer *Testata motrice*	Output *Uscita*		ø Feeder - *Coclea*	ø A	ø B	ø C	ø D DIN 5482	E	F	ø G	
										N°	Ø
M43	CM	0	114 - 139	190	170	148	/	/	/	4	M 8
	CM	1	168	250	220	162	/	/	/	8	M 10

Motor size *Grand. motore*	ø H	ø L	ø M	N		P	ø Q	ø R	S	T	Weight - *Peso* kg	
				CM0							CM0	CM1
100 - 112	250	215	180	181	191	14	M 12	28	31	8		26
132	300	265	230	/	211	14	M 12	38	41	10	/	29



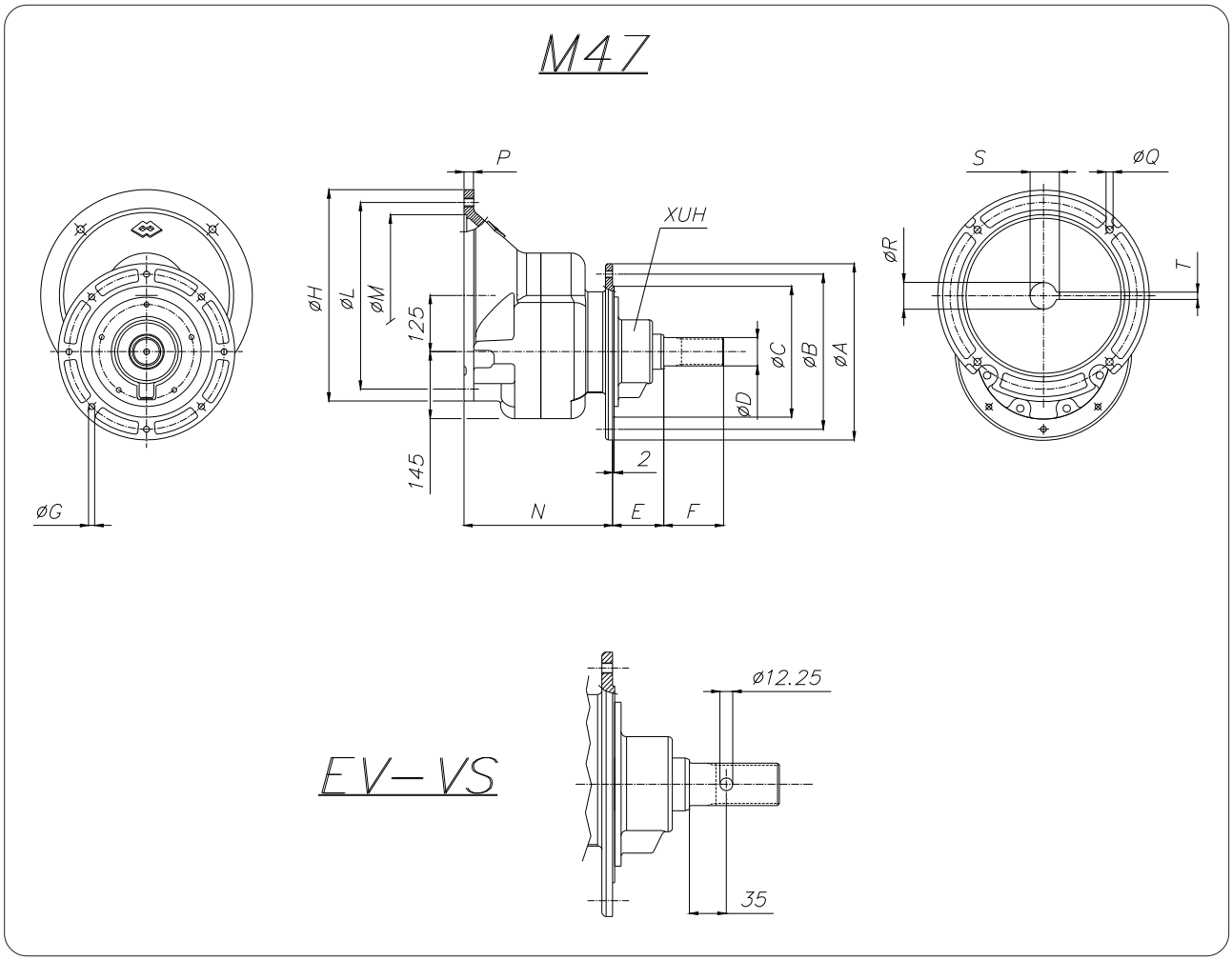
Gear reducer *Testata motrice*	Output *Uscita*		ø Feeder - *Coclea*	ø A	ø B	ø C	ø D DIN 5482	E	F	ø G	
										N°	Ø
M45	**ES-EV-VS**	**1**	168	250	220	162	40 x 36	72.5	85	8	M 10
	ES-EV-VS	**2**	193	250	220	186	40 x 36	72.5	85	8	M 10
	ES-EV-VS	**3**	219	275	250	210	40 x 36	72.5	85	8	M 10
	ES-EV-VS	**4**	273	330	305	265	40 x 36	72.5	85	8	M 10
	ES-EV-VS	**5**	323	405	370	315	40 x 36	72.5	85	8	M 10

Motor size *Grand. motore*	ø H	ø L	ø M	N	P	ø Q	ø R	S	T	Weight - *Peso* kg				
										ES1	ES2	ES3	ES4	ES5
100 - 112	250	215	180	210	14	M 12	28	31	8	36.5	36.5	38.5	40.5	
132	300	265	230	230	14	M 12	38	41	10	40	40	42.5	45.5	
160	350	300	250	260	15	M 16	42	45	12	44.5	44.5	46.5	49.5	



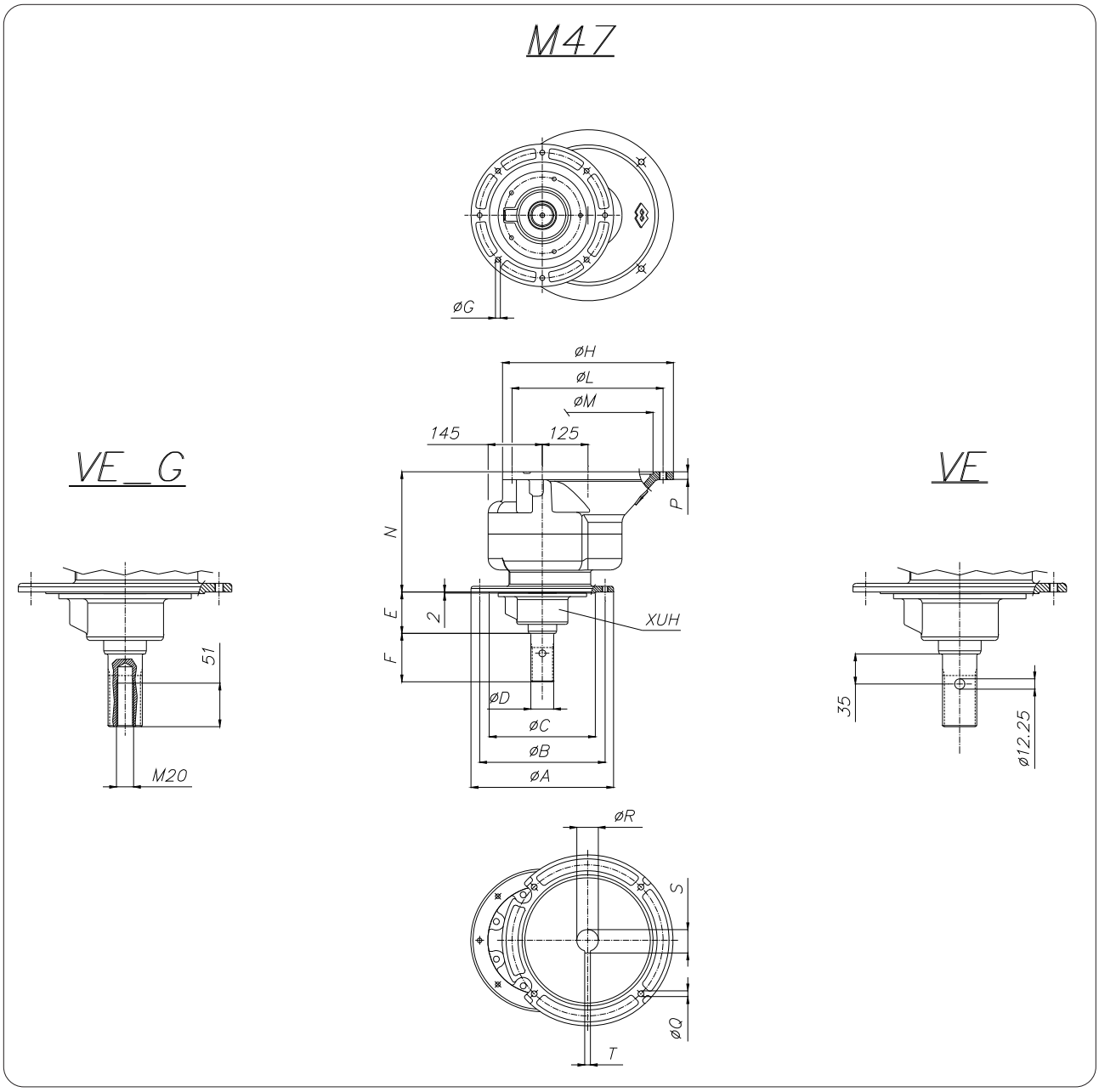
Gear reducer *Testata motrice*	Output *Uscita*		ø Feeder - *Coclea*	ø A	ø B	ø C	ø D DIN 5482	E	F	ø G	
										N°	Ø
M45	VE	1	168	250	220	162	40 x 36	72.5	85	8	M 10
	VE	2	193	250	220	186	40 x 36	72.5	85	8	M 10
	VE-VE_G	3	219	275	250	210	40 x 36	72.5	85	8	M 10
	VE-VE_G	4	273	330	305	265	40 x 36	72.5	85	8	M 10
	VE-VE_G	5	323	405	370	315	40 x 36	72.5	85	8	M 10

Motor size *Grand. motore*	ø H	ø L	ø M	N	P	ø Q	ø R	S	T	Weight - *Peso* kg				
										VE1	VE2	VE3	VE4	VE5
100 - 112	250	215	180	210	14	M 12	28	31	8	36.5	36.5	38.5	40.5	
132	300	265	230	230	14	M 12	38	41	10	40	40	42.5	45.5	
160	350	300	250	260	15	M 16	42	45	12	44.5	44.5	46.5	49.5	



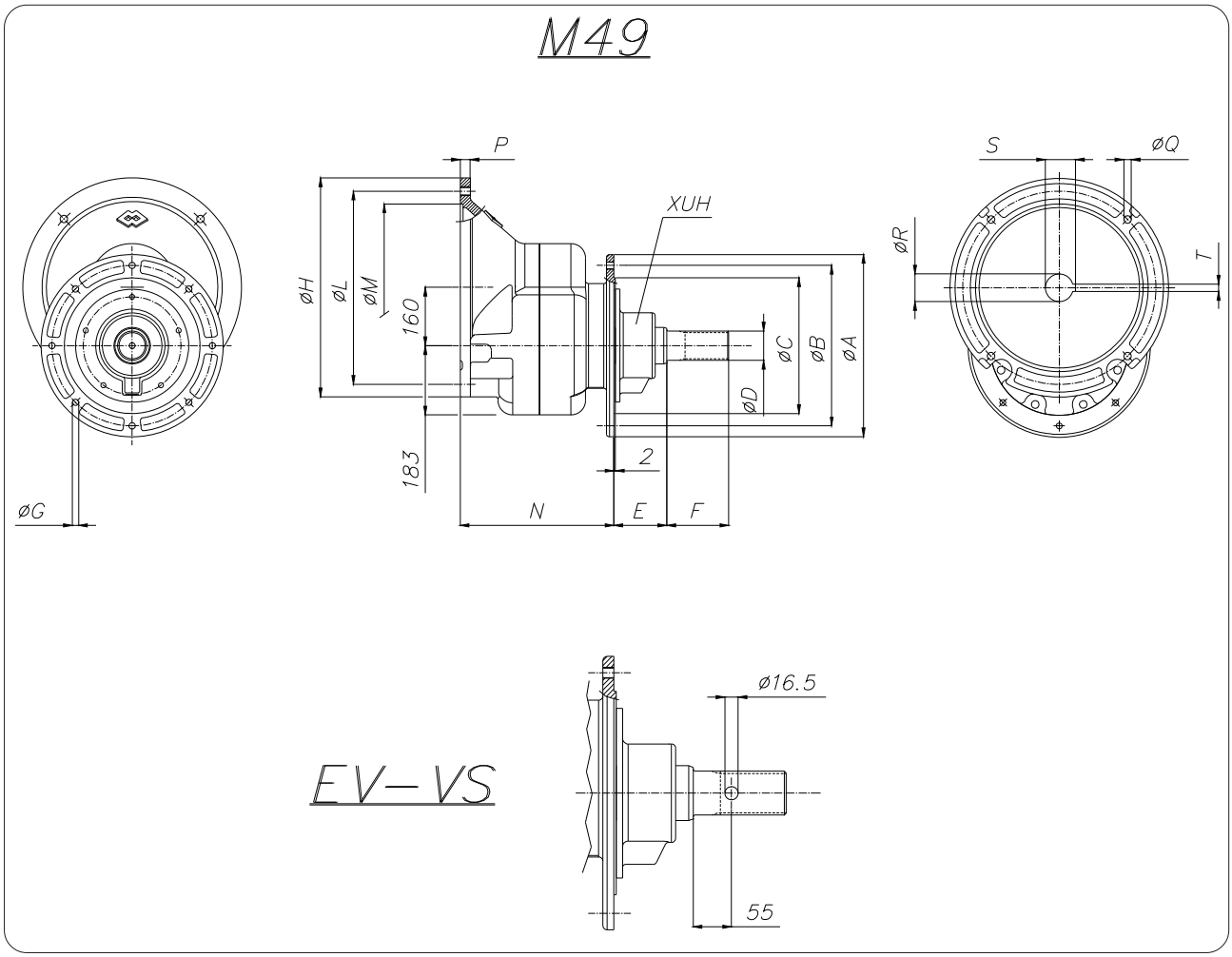
Gear reducer *Testata motrice*	Output *Uscita*		ø Feeder - *Coclea*	ø A	ø B	ø C	ø D DIN 5482	E	F	ø G	
										N°	Ø
M47	ES-EV-VS	1	168	250	220	162	40 x 36	72.5	85	8	M 10
	ES-EV-VS	2	193	250	220	186	40 x 36	72.5	85	8	M 10
	ES-EV-VS	3	219	275	250	210	40 x 36	72.5	85	8	M 10
	ES-EV-VS	4	273	330	305	265	40 x 36	72.5	85	8	M 10
	ES-EV-VS	5	323	405	370	315	40 x 36	72.5	85	8	M 10

Motor size *Grand. motore*	ø H	ø L	ø M	N	P	ø Q	ø R	S	T	Weight - *Peso* kg				
										ES1	ES2	ES3	ES4	ES5
132	300	265	230	230	14	M 12	38	41	10			56	60	
160	350	300	250	260	15	M 16	42	45	12			61	65	
180	350	300	250	275	15	M 16	48	51.5	14					



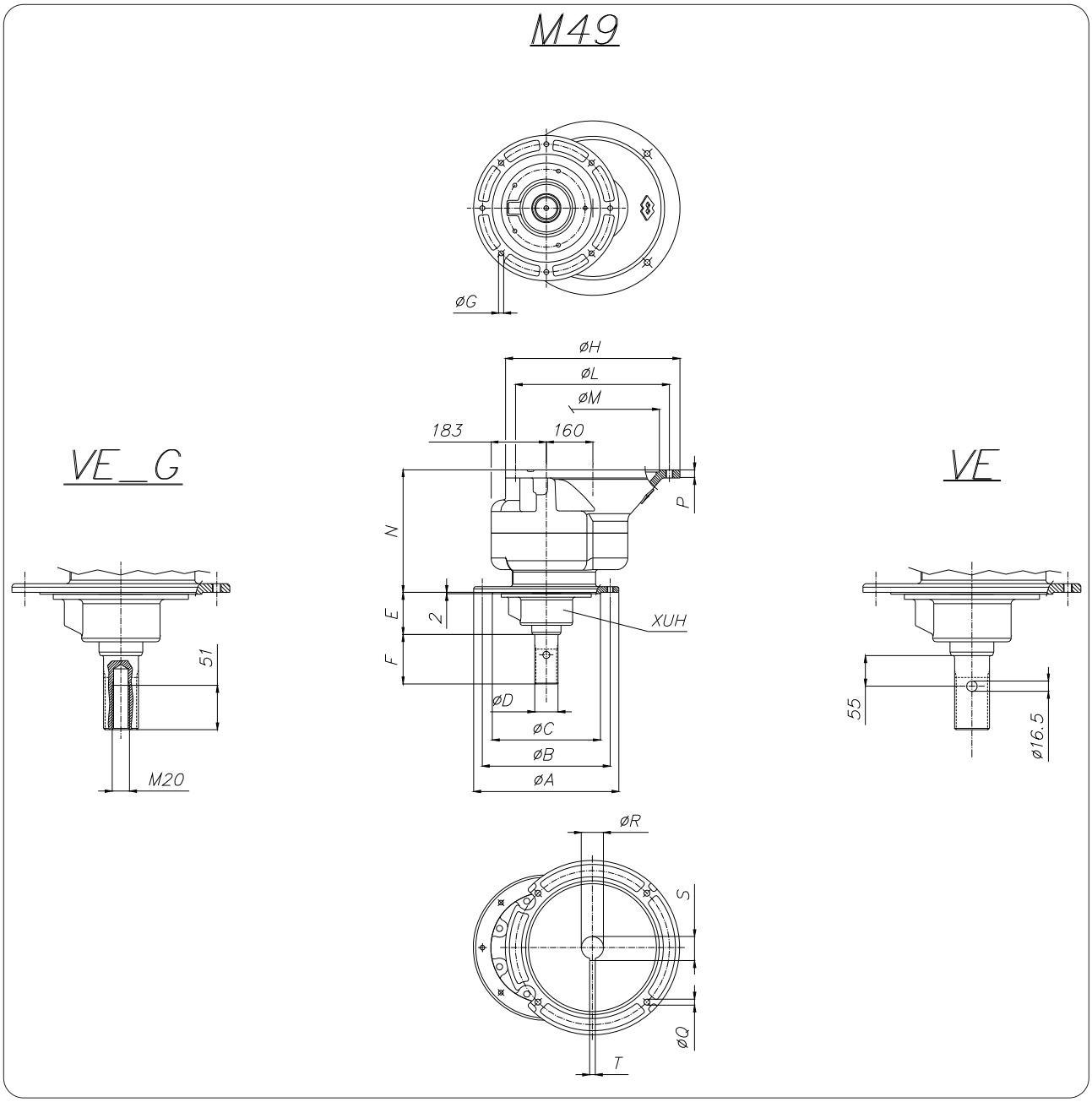
Gear reducer *Testata motrice*	Output *Uscita*		ø Feeder - *Coclea*	ø A	ø B	ø C	ø D DIN 5482	E	F	ø G	
										N°	Ø
M47	VE	1	168	250	220	162	40 x 36	72.5	85	8	M 10
	VE	2	193	250	220	186	40 x 36	72.5	85	8	M 10
	VE-VE_G	3	219	275	250	210	40 x 36	72.5	85	8	M 10
	VE-VE_G	4	273	330	305	265	40 x 36	72.5	85	8	M 10
	VE-VE_G	5	323	405	370	315	40 x 36	72.5	85	8	M 10

Motor size *Grand. motore*	ø H	ø L	ø M	N	P	ø Q	ø R	S	T	Weight - *Peso* kg				
										VE1	VE2	VE3	VE4	VE5
132	300	265	230	230	14	M 12	38	41	10			56	60	
160	350	300	250	260	15	M 16	42	45	12			61	65	
180	350	300	250	275	15	M 16	48	51.5	14					



Gear reducer *Testata motrice*	Output *Uscita*		ø Feeder - *Coclea*	ø A	ø B	ø C	ø D DIN 5482	E	F	ø G	
										N°	Ø
M 49	**ES-EV-VS**	**3**	219	275	250	210	60 x 55	72.5	110	8	M 10
	ES-EV-VS	**4**	273	330	305	265	60 x 55	72.5	110	8	M 10
	ES-EV-VS	**5**	323	405	370	315	60 x 55	72.5	110	8	M 10

Motor size *Grand. motore*	ø H	ø L	ø M	N	P	ø Q	ø R	S	T	Weight - *Peso* kg		
										ES3	ES4	ES5
160	350	300	250	302	22	M 16	42	45	12			
180	350	300	250	302	22	M 16	48	51.5	14		103	112
200	400	350	300	302	22	M 16	55	59	16			



Gear reducer *Testata motrice*	Output *Uscita*		ø Feeder - *Coclea*	ø A	ø B	ø C	ø D DIN 5482	E	F	ø G	
										N°	Ø
M 49	VE-VE_G	3	219	275	250	210	60 x 55	72.5	110	8	M 10
	VE-VE_G	4	273	330	305	265	60 x 55	72.5	110	8	M 10
	VE-VE_G	5	323	405	370	315	60 x 55	72.5	110	8	M 10

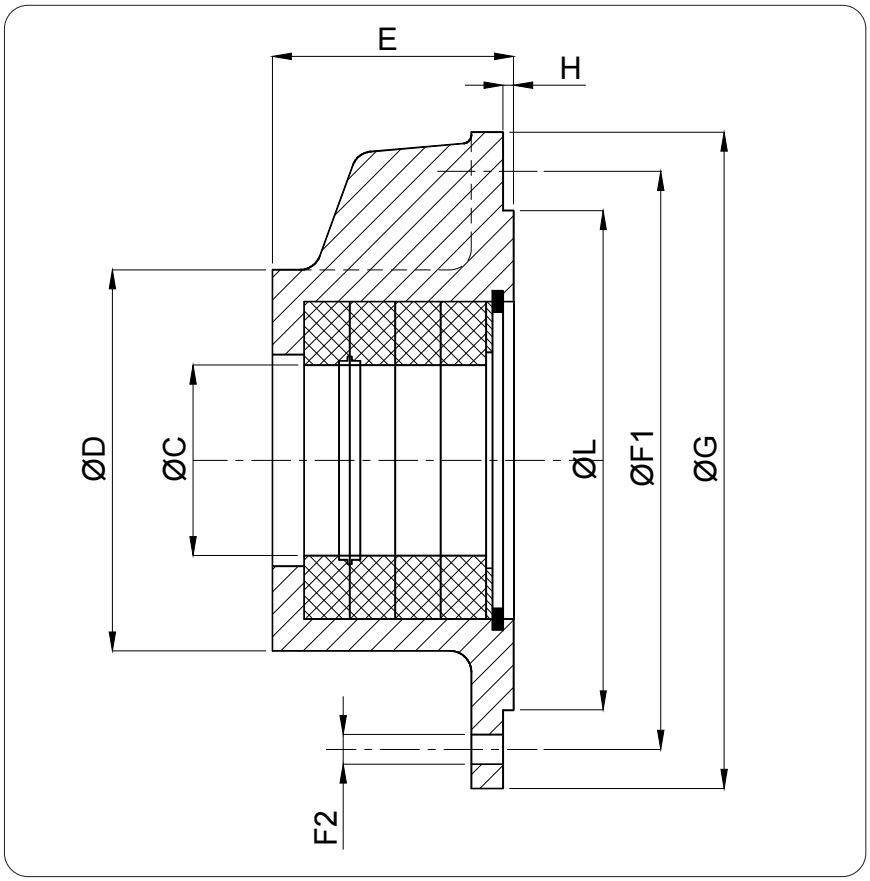
Motor size *Grand. motore*	ø H	ø L	ø M	N	P	ø Q	ø R	S	T	Weight - *Peso* kg		
										VE3	VE4	VE5
160	350	300	250	302	22	M 16	42	45	12			
180	350	300	250	302	22	M 16	48	51.5	14		103	112
200	400	350	300	302	22	M 16	55	59	16			

GEARBOX INLET SUITABLE TO B5 MOTOR - *RIDUTTORE "M" ENTRATA P.A.M.*

Type	Motor size - *Grandezza motore*														
	80		90		100		112	132			160		180		200
	A	B	S	L	LR	LH	M	S	M	L	M	L	M	L	M
M 41	X	X	X	X	X	X									
M 43	X	X	X	X	X	X	X	X							
M 45					X	X	X	X	X	X	X	X			
M 47								X	X	X	X	X	X	X	
M 49											X	X	X	X	X

REAL GEAR RATIOS - *RAPPORTI REALI DI RIDUZIONE*

I_n	M 41	M 43	M 45	M 47	M 49
5	5.154	4.923	4.846	5.154	4.923
6	5.667	5.909	5.909	5.667	5.909
7	6.363	6.600	6.600	6.900	6.600
10	9.909	9.200	9.900	9.600	9.200



Code	ø C	ø D	ø F1	F2		ø G	E	H	L	kg	For - *Per*
				Ø	n°						
XUH035_4	35	58	68	5	4	76	37	-	-	0.3	M41-M43 (ES0)
XUH050_4	50	90	134	9	5	155	57	2.5	118	0.5	M43 (ES1-2-3) M45-M47
XUH070_1	70	105	134	9	5	155	59	2	118	0.8	M 49

	Type sealing - *Tipo tenuta*	T. min	T. max
2	For water - *Per acqua*	-40	+120
3	For Medium temp. - *Per Media temp.*	-50	+200
5	With chambre graisse - *Con camera a grasso*	-40	+120
6	Air Purged - *Flussata ad aria*	-40	+120
7	At labyrinth - *A labirinto*	-40	+200
H	For filler hight temp. - *Per filler alta temperatura*	-50	+200
J	Of series - *Di serie*	-40	+120
L	For Cold coal - *Per carbone freddo*	-40	+120
M	For Hot coal - *Per carbone caldo*	-50	+200

Type	Outlet		Inlet															
	ES	Ø Screw	80		90		100		112	132			160		180		200	225
			0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	9.2	11	15	18.5	22	30	37
			kg															
M 41	ES0	114	15.7		15.7		17.7			/			/		/		/	/
		139																
M 43	ES0	114	/		1		1			1	/		/		/		/	/
		139																
	ES1	168	24		24		26			29		/						
	ES2	193																
	ES3	219	/		26.5		28.5			31								
M 45	ES1	168	/		/		36.5			40			44.5		/		/	/
	ES2	193																
	ES3	219					38.5			42.5			46.5					
	ES4	273					40.5			45.5			49.5					
	ES5	323					50			54			58					
M 47	ES1	168	/		/		/		/	1			1		1		/	/
	ES2	193																
	ES3	219								56			61		1			
	ES4	273								60			65		1			
	ES5	323								67.5			72.5		1			
M 49	ES3	219	/		/		/		/	/			1		1		1	/
	ES4	273											1		103		1	
	ES5	323											1		112		1	

ООО "РусАвтоматизация"

454010 г. Челябинск, ул. Гагарина 5, оф. 507

тел. 8-800-775-09-57 (звонок бесплатный), +7(351)799-54-26, тел./факс +7(351)211-64-57

info@rusautomation.ru; русавтоматизация.рф; www.rusautomation.ru